zenon
by COPA-DATA

zenon manual

Release notes zenon 8.10

v.8.10

Contents

1 Welcome to COPA-DATA help

ZENON VIDEO-TUTORIALS

You can find practical examples for project configuration with zenon in our YouTube channel (https://www.copadata.com/tutorial_menu). The tutorials are grouped according to topics and give an initial insight into working with different zenon modules. All tutorials are available in English.

GENERAL HELP

If you cannot find any information you require in this help chapter or can think of anything that you would like added, please send an email to documentation@copadata.com.

PROJECT SUPPORT

You can receive support for any real project you may have from our Support Team, who you can contact via email at support@copadata.com.

LICENSES AND MODULES

If you find that you need other modules or licenses, our staff will be happy to help you. Email sales@copadata.com.

2 General

2.1 Windows 7 operating system will no longer be supported by the Editor (F 66266)

As a result of the transition to **Microsoft SQL Server 2017 Express**, the zenon Editor, regardless of the operating system version, can only be run on 64-bit operating systems.

The zenon Editor can no longer be used on **Windows 7 SP1** and **Windows Server 2008 R2**. The zenon Runtime can still be run on **Windows 7 SP1** and **Windows Server 2008 R2**.

2.2 Supported operating systems

2.2.1 Desktop operating systems

Supported desktop operating systems and minimum required Windows Service Pack/version:

Operating system	zenon Editor	zenon Runtime	zenon Web Server	zenon Web Client	zenon HTML Web Engine	zenon Logic Runtime	zenon Analyzer Server
Windows 7 (Professional, Enterprise and Ultimate version, x86 and x64 versions).	Cannot run	SP 1	SP 1	SP 1	SP 1	SP 1	Cannot run
Windows Embedded Standard 7 (if all necessary operating system components exist).	Cannot run	SP 1	SP 1	SP 1	SP 1	SP 1	Cannot run
Windows 8 and 8.1 (Standard, Professional, Enterprise version, x86 and x64 versions)	Only x64 from SP 0	SP 0	SP 0	SP 0	SP 0	SP 0	Only x64 with SP 0
Windows Embedded 8 Standard (if all necessary operating system components exist).	Cannot run	SP 0	SP 0	SP 0	SP 0	SP 0	Cannot run
Windows 10 (Home, Pro, Enterprise, Education, Pro Education, Enterprise LTSB, IoT Enterprise, Pro for Workstations)	Only x64 from 1507	1507	1507	1507	1507	1507	Only Home, Pro and Enterprise (each x64) from 1507

2.2.2 Server operating system

Supported server operating systems and minimum required Windows Service Pack/version:

Server operating system	zenon Editor	zenon Runtime	zenon Web Server	zenon Web Client	zenon HTML Web Engine	zenon Logic Runtime	zenon Analyzer Server
Windows Server 2008 R2 (All editions with the exception of Core)	Cannot run	SP 1	SP 1	SP 1	SP 1	SP 1	Cannot run
Windows Server 2012 and 2012 R2 (All editions with the exception of Core)	SP 0	SP 0	SP 0	SP 0	SP 0	SP 0	SP 0
Windows Server 2016 (All editions with the exception of Core)	10.0.14393	10.0.14393	10.0.14393	10.0.14393	10.0.14393	10.0.14393	10.0.14393
Windows Server 2019 (All editions with the exception of Core)	10.0.17763	10.0.17763	10.0.17763	10.0.17763	10.0.17763	10.0.17763	10.0.17763

2.2.3 Microsoft SQL Server 2017 Express (F 66266)

From zenon Version 8.10 onward, **Microsoft SQL Server 2017 Express** is installed by default.

As a result, the zenon Editor can only be run on 64-bit operating systems. In addition, the Editor is no longer supported for **Windows 7 SP1** and **Windows Server 2008 R2**.

2.3 Performance

Further performance improvements have been implemented for version 8.10.

2.4 IPA - no longer available from version 8.00 onward

The Industrial Performance Analyzer (IPA) has been discontinued as of version 8.00.
The product can no longer be obtained or licensed. Existing installations can continue to be used.

The following applies from version zenon 8.00 onward:

- Development of the product will no longer continue.
- No rectifications of errors will be carried out.
- The documentation will not be edited or enhanced.

Recommendation: Use zenon Analyzer instead of the IPA.
This provides various reports for alarm data and further evaluations for production plants.

2.5 zenon is available in Japanese (F 147478)

zenon Editor and Runtime are now also available with an interface in Japanese.

2.6 Shortened startup time for zenon Editor

The start time of zenon Editor has been reduced considerably.

3 Licensing

3.1 Activation of remote licensing and license borrowing (F 177240)

In order to use remote licensing or license borrowing, these must now be explicitly enabled in the **Startup Tool** .

The corresponding options can be found there under **Application -> Options** in the **General** tab:

- License borrowing: **Enable license borrowing**
- Remote licensing **Enable remote licensing**

3.2 Borrowing of licenses (F 74423)

Licenses can now also be borrowed. A service technician can thus, for example, take a certain license for external use and return it later.

The following is applicable for license loan:

- **Expiration date:**
  Each loaned license has an expiry date. If this is reached, the license is automatically returned to the loaning source dongle.
  In this case, there is a search for further valid licenses for the target computer. If no other valid license is found, each product that has been licensed with the loan license is closed.
- **Loan duration:**
  The maximum loan duration is 90 days.
  The license is automatically returned after this.
- A license can be returned manually before the expiry date is reached.
- **Automatic assignment:**
  If the **Apply activated licenses immediately** option is activated, the license is automatically entered at the first place on the target computer for all licensed products.
- **Demo licenses:**
  Demo licenses can be neither loaned nor returned.
- **License overview:**
  The respective current loan details are displayed in the license details in license use, license overview and license loan:
  Loaned licenses, end of validity of the loaned license, ID of the loan dongle. These are only visible if a line contains at least one value.
- **Availability:**
  A loan is only possible for hardware dongles and software dongles, not for virtual machines.

- **Loan forwarding limit:**
  A borrowed license cannot be loaned further.
  The license must first be returned before being loaned again to another user.

3.3 Demo license duration for Runtime (B 179594)

Demo licenses for the zenon Runtime are now licenses with a time quota.

That means:

- A period of 43,200 minutes (30 days) is available.
  Exception: Demo licenses for a virtual machine. This is limited to 1,440 minutes (1 day).
- Each minute started is deducted from the time quota.

3.4 Dongle requirements

From zenon 8.00 and zenon Analyzer 2.20 onward, the following applies for hardware dongles:

The hardware dongle must have firmware (series) *3.10* or higher.
The serial number of this dongle must be greater than *3-3440000*.
Dongles from series *1,, 2* and lower than *3.10* are not supported.

3.5 Command line: New commands offline licensing (F 171877)

The **LicenseManagerAutomation.exe** command line tool now makes it possible to activate licenses offline.

4 zenon Logic Workbench

4.1 zenon supports the creation and management of zenon Logic projects using the project list (F 75376)

zenon Logic projects that have been created in the zenon Editor or in the zenon Logic Workbench are now visible in the zenon Editor project list as well as in the zenon Logic Workbench .

Several 61131-3 projects can thus be edited at the same time within a <CD_PDODUCTNAME> project. zenon Logic Workbench functions can be applied to several projects, such as correcting the project, compiling, downloading to the target system or a project comparison. Beyond several 61131-3 projects, settings for the direct networking of Runtime can be undertaken (**Globale Binding**). Variables from different target systems can be compiled in integrated views to assess the Runtime values.

Refreshes are carried out without the zenon Logic Workbench having to be closed.

4.2 Assigning the driver during the integration of zenon Logic projects into zenon

Projects that have been created in the zenon Logic Workbench can be integrated into the zenon project using the zenon Logic**Integrate project** dialog. This results in the comparison of variables and the Runtime communication as part of the integrated solution on the basis of the driver selected in the dialog.

4.3 Definition of the start project during the execution of the zenon Runtime using the command line (F 66290)

The desired start project can be passed as the command line parameter during the execution of the zenon Runtime.

4.4 61131-3 project list for distributed engineering (F 75376)

The 61131-3 project list is now also available for distributed engineering:

- Checkout of individual 61131-3 projects or exclusive checkout of the entire project list
- Checkout of dependent modules for consistent editing is verified and, if applicable, initiated by the Editor
- The locking of projects and cross-project definitions within the zenon Workbench ensures consistent editing

5 Editor

5.1 Direct destination input is possible in the Substitute filter objects dialog (F 131849)

In the **Substitute filter objects** dialog, entries under **Destination** can now be directly changed on the keyboard without leaving the dialog.

A new context menu is available for this purpose.

5.2 DPI adaptations (F 133681)

The checkboxes are now scaled according to the DPI settings.

This concerns the following checkboxes:

- The reaction matrix dialogs
- The AML screen switch function (in Runtime too)
- The configuration of combined elements (**Status Definition** and **Test Mode**)

5.3 "Description" property available for more project configuration content (F 128694)

The **Description** property can be used to add an extra information text in the form of a short description to the project configuration content.

This property is available for project content in the properties window of zenon Editor in the **General** property group.

If the property can be found in another property group, this is shown separately as follows:

- **Variables:** The property is available as soon as a variable has been highlighted.
  - **Reaction Matrix:** The property is available as soon as a reaction matrix has been highlighted.
  - **Allocations:** The property is available in the respective list entry of the corresponding assignment.
  - **Alarm:**

    Alarm/event groups: The property is available as soon as an alarm/event group has been highlighted.

    Alarm/event classes: The property is available as soon as an alarm/event class has been highlighted.

    Alarm Areas: The property is available as soon as an alarm area has been highlighted.
- **Screens:** The property is available as soon as a screen has been highlighted.
  - **Frames:** The property is available in the respective list entry of the corresponding template.
  - **Font lists**: The property is available under the **Font** property group as soon as a font list has been highlighted.
- **Functions:** The property is available as soon as a function has been highlighted.
  - **Scripts**: The property is available as soon as a script has been highlighted.
- **Recipe groups:**
  - **Standard Recipes:** The property is available as soon as a recipe has been highlighted.

- **Recipe Group Manager** The property is available as soon as a recipe group has been highlighted.

- **zenon Logic** (IEC 61113-3): The property is available under the **Workbench** properties group as soon as a **zenon Logic project** has been highlighted.
- **Time Control:** The property is available as soon as a time function has been highlighted.
- **Interlockings:** The property is available as soon as an interlocking has been highlighted.
- **Menus:**
  - **Main Menus:** The property is available as soon as a main menu has been highlighted.
  - **Context menus**: The property is available as soon as a context menu has been highlighted.
- **User administration**
  - **User:** The property is available under the **Users** property group as soon as a user has been highlighted.
  - **User groups:** The property is available under the **User Group** property group as soon as a user group has been highlighted.
- **Equipment modeling node:**
  - **Equipment model**
  - **Equipment group**

5.4 "Element name" property changed to "Element ID" (F 128696)

The **element name** property has been renamed to **Element ID**. Linkings relate to the **Element ID**.

The **Visual name** property has also been added. A change to the name of this property does not affect linkings.

Default: **Element ID** corresponds to **Visual name**.

5.5 Addition of "Use next completed range" to the filter settings (F 64966)

In the **Time Filter** tab, under **Modify Time Range**, the following option is now available for selection:

- *Use next completed time period*

5.6 Measuring unit switch: New <Do Not Switch> option (F 135150)

The *<Do Not Switch>* option can also be selected for the **Measuring unit conversion**function.

5.7 Changes to the project analysis (F 125408)

The following changes have been made to the project analysis window:

- The **Property** table column is now available in the results list of the project analysis. In this column, information is provided about the point of use of the analyzed content.
- The object name of the search term is now also shown in the title bar of the project analysis window.

A search can now also be done for the following content:

- Reaction Matrices
- Screens
- Symbols: The symbols can be found in:
  - Screens (in the same project)
  - Screen elements
  - Other symbols (in the same project)
  - The general symbol library

In order to improve the runtime of the project analysis, the checkbox **General symbol library with project analysis taken into account** is deactivated by default. You can manually activate the checkbox in the zenon editor under the menu item **Extras**, **Settings...** and **Editor Options**.

5.8 New predefined graphics for switches and buttons (F 148247)

New templates are now available in the properties of switches and buttons under **Fill**, **Graphics file** and **Predefined graphics**.

5.9 Extended functionality for alarm/event class color (F 155307)

The new **Status-dependent text/background colors** option is now available to display alarms in the Runtime. The colors of the **alarm/event classes** are then used as a text/background color for the corresponding entries in the Alarm Message List in the Runtime.

5.10 Enhancements to the zoom area (F 159727)

The zoom area now extends from 10% to 1600%. If there are scroll bars present in the view, the display size of the area is adjusted around the mouse pointer when zooming.

6 Runtime

6.1 Copying of cell entries possible (F 127865)

In **Variable Diagnosis** screens, entries can be copied from cells in Runtime and inserted into cells of the **Set Value** column.

7 Screens

7.1 Screen elements

7.1.1 Released properties of symbols located within symbols can be released again (F 128696)

Released properties can now be defined separately for each use of the symbol (also within another symbol).

Thus, it is possible to use a symbol in different places of the project and to adapt the released properties to the respective area of use.

7.1.2 New dynamic screen element: SVG element (F 127993)

A new dynamic element is available. You can display SVG graphics in screens with the **SVG element**.

7.1.3 New display name for symbol groups (F 128696)

A newly-created symbol group now has the **Visual name** property, which can be freely amended and has no influence on the linkings of the symbol group.

7.1.4 Symbols: New equipment groups property (F 128694)

The new **Equipment Groups** property is now available for symbols in the local and global symbol library.

7.2 Filter profiles: Naming is possible in Runtime for touchscreens (F 134099)

Filter profiles can now be named and saved in Runtime on touchscreens using an optimized keyboard view.

Click in the filter profile combobox to open the keyboard view.

Note: The screen of **Keyboard** screen type must be given the name **DIALOGKBD**.

7.3 Dialog to replace links: New keyboard shortcut (F 125409)

In the screen editor and the symbol editor, the shortcut **Strg+R** is now also available in addition to the **Replace links...** context menu entry.

The dialog to replace links can be opened in both these ways.

7.4 Movement of the screen center also possible for the content of faceplates (F 150026)

With **faceplate** screens, a screen in it can now be selected as an initial point for the movement of the screen center.

7.5 New dialog to search and replace content in screens and symbols (F 125409)

You can search for texts, element IDs and visual names in screens and symbols in the **Search/Replace in** dialog.

The dialog can be opened using the **Ctrl+F** shortcut if a:

- Screen is open
- Symbol is open

7.6 Linked symbol wizard has been removed (F 128696)

The **Linked symbol wizard** has been removed and is no longer available.

8 Menus

8.1 Control elements renamed to elements [screen type name] (F 68410)

The **Control Elements** menu entry has been renamed to **Elements** and now shows the zenon screen type of the screen that has been opened.

Example: Elements [Extended Trend]

This makes it easier to find the respective control elements.

9 Modules

9.1 Alarms administration

9.1.1 New possibility of XML export/import in the project tree under alarm (F 130377)

There are now the following additional options available in each node of the project tree entries under **Alarm**:

- **Export all as XML...**
- **Import XML...**

The following options have been added to the respective tool bar and the context menu:

- **Export selected as XML...**
- **Import XML...**

9.1.2 Alarm status line inactive by default (F 68410)

The alarm status line is now *inactive* by default but can be activated manually.

9.1.3 Evaluation of unconfirmed and active alarms for the alarm status variable (F 142121)

Unconfirmed and simultaneously active alarms can now be evaluated using a separate status bit.

9.2 Equipment Modeling

9.2.1 New properties for equipment groups to determine maintenance tasks (F 133687)

For the equipment groups, there are now two properties available in the **Industrial Maintenance Manager** group to determine outstanding maintenance tasks:

- **Number of pending maintenances**
- **Total number of pending maintenances**

9.2.2 Display of elements linked to equipment groups in the project analysis window (F 125408)

Elements that have not been connected to equipment groups can now be shown in the **project analysis** window.

This was previously implemented in a separate dialog.

9.3 Historian

9.3.1 Entry of additional information possible (F 128694)

Additional information can be entered in the new **Description** property. This information is also shown in the Editor in the archive overview.

The property can be used for XML import/export and API access.

9.4 Batch Control

9.4.1 Unit allocation (F 147726, 147727)

Unit allocation placeholders and unit allocation placeholder groups can now also be used for unit allocation.

UNIT ALLOCATION ELEMENT

When executing the unit allocation element, a check is made to see whether all placeholders are linked to unit instances. Placeholders without linking are not permitted.

The type of unit is shown in the dialog for unit allocation:

- Unit
- Unit placeholder: is highlighted in color
- Unit placeholder group: is highlighted in color

With grouped placeholders, only the complete placeholder group can be selected. If an ungrouped placeholder that has already been used is added to a group, this leads to an invalid unit allocation.

Placeholder groups are not available in operation templates. Placeholder groups are used in operation instances however. A placeholder can thus become a placeholder group. Assignments with a placeholder group in a recipe can thus also be approved in an operation instance.

PHASE

The unit is allocated when a phase is started. With the exception of when one of these conditions is met:

- Placeholder phase without assigned unit instance.
- Execution status: *Paused*, *pausing*, *holding* or *held*.

No allocation is carried out in this case. In all other cases, an attempt is made to allocate the unit immediately.

9.4.2 Unit classes and unit instances (F 79663)

In order to make configuration more flexible, unit classes and unit instances are now available. It is thus possible to create units in the Editor that are only later assigned to actual items of equipment in Runtime.

- Unit:
  Physically available machine or equipment part with which phases can be carried out.
- Unit class:
  Template for units.
  Unit instances are created on the basis of this template. All properties of the unit class are applied to the unit instances and can be amended there.
- Unit instance:
  Unit that is based on a unit class.
  All properties of the unit class are applied to the unit instances and can be amended there.

Units, unit instances and unit classes are displayed in the unit tree.

Phases, reactions, parameters and control strategies can be copied from unit classes and unit instances and added as a local copy for other unit instances.

9.4.3 Unit place holder (F 79662, 79663, 147726)

When configuring recipes, units that have not yet been assigned to any item of equipment can now also be used. Unit placeholders are used for this. These relate to unit classes and are only linked to actual items of equipment later using unit instances. An assignment can still be changed until a phase has executed the unit allocation or the unit allocation has been forced manually.

Unit placeholders are available for recipes and partial recipes. Placeholders of the same unit class can be compiled into groups. This ensures that, in the recipe process, all placeholders that use a certain unit class are also assigned to the same item of equipment.

Unit placeholders can be created, renamed or deleted. If unit instances are removed, the phases are converted to class phases again.

Placeholders in recipes and partial recipes are also taken into account when synchronizing the phases between Runtime and the Editor.

During the process, the status of a phase with regard to the linked unit instance is now displayed with new border colors:
Border colors of phases in the process:

- *Blue*: Placeholder is not assigned to a unit instance.
- *Green*: Placeholder has been assigned to a unit instance. This can still be changed.
- *Black*: Allocation can no longer be changed.

OPERATIONS

Unit placeholders for partial recipes are displayed in the placeholder list for the master recipe. In partial recipes, all placeholders of the template recipe can be used that were available when the template recipe was released.
Placeholders in partial recipes also have the properties:

- Chart ID partial recipe
- Operation name
- Description of partial recipe

All properties can be displayed but not edited.

9.4.4 Conditions for commands (F 141333)

Conditions for phase commands and recipe commands now make it possible to configure a phase in such a way that it can be paused, held, stopped, restarted or continued by the PLC. The conditions are defined using formulas. The formulas are checked in active phases. If the first check for a formula results in *TRUE* or a subsequent check results in a switch from *FALSE* to *TRUE*, the commands are triggered. The triggering happens regardless of whether the command can be executed.

9.4.5 Phases (F 79663)

Phases can now also be created for unit classes and unit instances.

Phases of the unit classes are taken from unit instances. Local phases can also be created for unit instances. If a pre-existing phase of a unit class is renamed and there is a naming conflict, a **local n** prefix is placed in front of the local phase.

If phases are edited, created or deleted in the linked unit class, these changes are also applied.

9.4.6 Parameter: Adjusting the validation (F 145904, 156903)

If the parameter values are located outside the specified limits, then the system reacts for:

- Control recipe can be edited: Warning
- Control recipe cannot be edited: Error message
- If the **Variable for tag value** property is active, then the masks must be replaced by real variables. Configured parameter values are not checked then.

9.4.7 Parameter: Limit values for XML import (F 140292)

Master recipes and control recipes can be exported and reimported in XML format. When importing, the limit values for parameters are also read and validated.

9.4.8 Parameter: Can be changed during execution (F 147729, 171739)

Parameters can now also be changed when a phase is already being executed.
In order to do this, the new **ExecPhaseTagChangeable** property must be activated in the Editor.

9.4.9 Parameter: Renaming of the return parameter (F 147726)

The return parameter has been renamed to: **Return/PLC sync parameter**.

9.4.10 Parameter: Behavior in unit instances (F 79663)

Parameters in phases of a unit class and in control strategies are also displayed in unit instances and are linked to them. Some properties of linked parameters can be overwritten locally. Local parameters that have no connections to unit classes can also be created.

9.4.11 Parameter: Value through variable or placeholder (F 156903)

Parameter values can also be read in using variables. In order to do this, the new **Variable for tag value** property is configured in the Editor.

During the configuration of the template recipe in Runtime, the parameter is assigned a variable which sets the parameter value. Variables are only offered that correspond to the template defined in the **Variable for tag value** property.

9.4.12 Placeholder not linked: No skipping (F 147729)

If a placeholder is not linked to a unit instance, then the steps cannot be skipped in the REE in manual mode. A corresponding message is displayed.

9.4.13 Placeholder not linked when activating the phase (F 147729)

If a placeholder phase is activated, then the previous phase is deactivated. If a placeholder phase is not linked to a unit instance at the time of execution, the result *placeholder not linked to instance* is set.

9.4.14 Project analysis for batch control (F 79663)

Variables that are used in unit classes are now also available for the zenon project analysis. Variables in unit instances are only shown if the derivation has been separated from the unit class.

9.4.15 Reactions: New “Placeholder not linked to instance” event (F 79663)

There is a new event available for the reactions: *Placeholder not linked to instance*

This can be used during Runtime to notify a user if a placeholder phase is not linked to a unit instance at the time of execution.

This reaction is only available for unit classes.

9.4.16 Reactions: New “Validation error” event (F 79663)

There is a new event available for the reactions: *Checking error*.

This event is fired when the parameters of a phase have an invalid configuration after the phase is activated.

This concerns:

- Parameters that are outside the limits.
- Limits for minimum and maximum of a parameter that is outside the minimum and/or maximum limits of the variables.

9.4.17 Recipes with placeholders: Validation (F 147728)

All substitutable phases are validated in Runtime during the validation of recipes with placeholders.

- Placeholder phase:
  Error messages for placeholder phase are displayed with the label **Unit class** instead of with **Unit**. As long as at least one possible instance exhibits an error, the recipe cannot be approved or started.
- Checking of limit values for parameters:
  A check is carried out to see whether all values for parameters are within the limits. In the case of an error, the *Validation error: Values outside the limits* event is set. There is a wait until all values are within the limits.

9.4.18 System driver variables (feature 171739)

Three system driver variables are now available for monitoring the automatic creation of control recipes:

- **[Batch Control] Create control recipe result numerically**
- **[Batch Control] Create control recipe result string**
- **[Batch Control] Create control recipe result XML**

9.4.19 Transitions (F 147727)

Parameters of unit placeholders and unit placeholder groups can now be used for transitions. In the selection dialog for parameters in the formula configuration, the corresponding type is displayed in the Unit type column: *Unit*, *Placeholder* or *Placeholder group*.

When starting a transition, a check is carried out to see whether all parameters are linked to phases of units or unit instances. Placeholders without linking are not permitted.

9.4.20 Waiting period for allocation of a unit instance (F 147729)

A waiting period can now be set and linked to a reaction for the allocation of a unit instance to a placeholder. The operator is thus notified if a recipe cannot run because a placeholder has not been assigned a unit instance.

9.4.21Value change during execution (F 125339)

Values for initial parameters and value parameters can now each be edited and written to the PLC between the start of writing and the successful checking of the input lock or phase done condition. Optionally, changed values are written together only after an additional confirmation.

9.4.22 XML export and import (F 79663, 146676, 156903, 147723)

The following can now be exported in XML files:

- Unit classes
- Unit instances
- Templates and control recipes with placeholders

These can also be imported again from the XML files.

Masks for the **Variable for tag value** property and variables which replace the masks in Runtime are exported and imported.

9.5 User Administration

9.5.1 Display of deleted users (F 135083)

AD users who are deleted during ongoing operation can no longer be displayed in lists with their complete user names. If a user is not found in either the zenon user list or in the AD, the following applies:

- From now on, Runtime no longer attempts to read the complete user name of the domain controller. Another read only takes place if the cache is deleted. This happens is a user log on or Runtime is restarted.
- The user identification is shown in the AML, CEL and report viewer lists for these entries in the **Complete User Name** column.

9.5.2 Linking of equipment groups to user group (F 128694)

The **Equipment Groups** property is now also available under the following node items:

- **Screens: Styles** and properties of the **style group**
- **User administration**: **User groups** and properties of the **User Group**

9.6 Chronological Event List

9.6.1 Project properties in CEL accept additional placeholders (F 139418)

The following project properties in the groups **Chronological Event List** and **Logging** accept additional placeholders:

- **Text on set value change**
- **Text on set value change (old/new value)**

9.6.2 Enhancement of CEL entries in the recipe group manager (F 157884)

If a recipe or a recipe group is saved again or duplicated under another name, the process is depicted in the corresponding CEL entry.

In order to make it easier to track changes, the CEL entry now provides information about:

- The name of the original recipe or the recipe group
- The name of the new recipe or the recipe group
- The Recipe version

9.7 Extended Trend

9.7.1 New Property "Refresh rate" (F 50127)

The new **Refresh rate** property has been added in the project manager under the **Menus** item and **Context Menus** under **Extended Trend**. This property can be used to set the refresh rate of Extended Trend in Runtime in seconds.

9.7.2 Automatic correction of overlaps for axis labeling (F 23620)

If, with the X-axis or Y-axis, with the *Fitted* setting enabled, there is overlapping of labeling when calculating the ticks displayed with a main tick, the text of the axis limit is not shown.

9.7.3 "Automatically optimized" removed from tick calculation (F 23620)

The *automatically optimized* option has been removed from tick calculation. If, in an older version of zenon, *automatic* or *automatically optimized* has been set for the tick calculation, the *automatic* setting is used with the new algorithm from zenon version 8.10.

9.7.4 ETM maximum values determine output of the style in Runtime (F 50099)

If a value given for the linked style exceeds the maximum possible value in the ETM in Runtime, the maximum value is applied.

The setting chosen in the Editor is retained however.

9.7.5 Styles can be changed in Runtime (F 50099)

A selected style can now also be replaced or removed in Runtime. The creation of new styles or style groups is not possible in Runtime.

9.7.6 Automatic application of the fill color of curve color (F 133603)

With curve lists, the fill color of the curve color can be applied automatically using the **Automatic** option.

Only available if the **area display** property has been activated.

9.7.7 New setting option for the value range of the scale for Y-axis (F 133603)

The following options are available for setting the value range of the scale:

- *From variable*
- *Static*
- *Automatic scaling*

9.7.8 Visibility value for Y-axis (F 133603)

The visibility of the Y-axis can be stipulated in Runtime using the **Visibility variable** property. Only *BOOL* variables are available for selection in the variable selection dialog.

If a visibility variable has been selected, the status of the **Axis active** property is no longer taken into account for the display of the Y-axis in Runtime.

9.7.9 Curve dialog in Runtime revised (F 133609)

The revised curve dialog can be opened using the **Curves...** button.

The dialog allows editing of the curves from the curve list in Runtime.

9.7.10 Curve settings when using styles and visibility variables (F 133597)

Curve settings that have been taken from a style cannot be changed in Runtime. The use of visibility variables for a curve or an axis also has an effect on the possibilities for editing curves in Runtime.

The buttons of the editing possibilities that are not available are inactive in both cases.

9.7.11 Tool tip for the display of curve values in Runtime (F 133609)

There is now a tool tip available in Runtime that shows the current curve value below the mouse pointer.

9.7.12 Application of the Y-axis color from curve (F 133597)

The new **Use color from curve** property takes on the color of the Y-axis from the curve.

Note: If a style of the **scale** type has been linked in zenon version 8.00, the **Use color from curve** property is automatically applied by the style after project conversion. As a result, there may be certain changes to the view under certain circumstances.

Default: *active*

9.7.13 New table columns in extended curve list, filter dialog and curve dialog

In the extended curve list table, the following table columns are now available:

- **Axis from**
- **Axis to**
- Type of line

9.7.14 Activation of linked functions via Gantt curves (F 133609)

Gantt curves can be linked to functions via variables and reaction matrices.

The linked function can now also be executed in Runtime if a limit violation occurs and if you use the mouse cursor to click on the Gantt curve in the area of the limit violation.

9.7.15 Message box on the use of substitution rules (F 133603)

When using substitution rules, a message box is now displayed in the **Data** tab in the ETM screen switch.

This will show how to use substitution rules without having to switch to the **Replace links** tab.

9.8 Load Management

9.9 Message Control

9.10 Process Gateway

9.11 Production and Facility Scheduler (PFS)

9.12 Process Recorder

9.12.1 Filtering in playback mode (F 125305)

Application of time filters during playback

for AML and CEL

it is possible to react to events.

Relative relates to => today or to configured point in time

9.13 Reporting

9.13.1 New USERID column for AML and CEL (F 177337)

In the Report Viewer, the **USERID** column is now available for AML and CEL. It displays the user identification.

9.14 Recipegroup Manager

9.14.1 Correct conversion of REAL data type to LREAL data type (F 127700)

When converting via **Recipe value validation**, the source data type REAL is correctly converted to the LREAL data type without rounding errors.

9.15 Command Sequencer

9.16 Shift Management

9.17 Context List

9.18 Industrial Maintenance Manager

9.18.1 Master data node hidden (F 64791)

The **Master Data** node is not shown if there are no entries in it.

9.18.2 Text fields support Unicode characters (F 64792)

All text fields now support Unicode characters.

9.18.3 Initial view of the IMM can be selected in Runtime (F 64792)

The initial view of the IMM in Runtime can be configured in the new **View** tab in the filter dialog for screen switching.

The following options can be selected:

- **Devices**
- **History**
- **Maintenances**

9.18.4 New Equipment Modeling tab in screen switch (F 64791)

The **Equipment Modeling** tab has been added in the screen switch filter dialog. You can create equipment models and equipment groups and filter them according to equipment groups in this view.

9.18.5 New Time tab in screen switch (F 64966)

The **Time** tab has been added in the screen switch filter dialog. You can change the settings for time filters in this view.

9.18.6 New features in the new master data / edit master data dialog (F 64793)

In the view of the Maintenance Works tab:

- Can be opened by double-clicking on an entry in the list of the maintenance dialog
- Can also be clicked in the line next to the entry to open the maintenance dialog
- Changes can be made with the **Insert**, **Delete** and **F2** keys on the keyboard

The **Edit**, **Delete** and **Duplicate** buttons are only available if these actions are possible.

9.18.7 IMM in a faceplate screen (F 63538)

An **IMM** screen can also be displayed in Runtime in a **faceplate** screen.

The filter settings of the **IMM** are taken into account in the process.

9.18.8 New master data / edit master data dialog enhanced (F 64793)

In the Maintenance tab, a click on the corresponding line is sufficient to select a list entry. List entries can now also be duplicated.

The functionality of the **Edit**, **Delete** and **Duplicate** buttons is only available if these actions can be executed.

Keys on the keyboard can also be used to edit the list entries as well as the buttons. This is also applicable for the adding, deletion and confirmation of entries.

9.18.9 Possibility of external triggering of maintenance (F 69510)

Maintenance tasks can now also be triggered by external programs using the new **Variable for external trigger** property.

The property is available in the following dialogs:

- **New master data / edit master data:** Trigger variable per device
- **New maintenance:**Additional trigger variable per maintenance task and configuration of the **trigger value** property

9.18.10 Operating authorization level can be selected using a drop-down menu (F 64793)

The authorization levels for users can be implemented in Runtime by means of a drop-down menu in the **Maintenance** dialog.

<0 values are set when converting to *0*.

>127 values are set when converting to *127*.

9.18.11 New CEL entries for actions in the IMM screen (F 131307)

New CEL entries have been created for the following actions:

- **Device new**
- **Delete device**
- **Device inactive**
- **Device exchange**
- **Counter exchange**
- **Add**
- **New Equipment Identifier**
- **Delete Equipment Identifier**
- **Edit maintenance**
- **Edit maintenance**
- **Delete maintenance**
- **Edit maintenance**
- **Duplicate maintenance**
- **Execute maintenance**
- **Execute repair**

9.18.12 Enhancements for the IMM (F 64966)

The following enhancements have been made:

- Maintenance tasks can be copied and inserted, even if the tree structure is not part of the IMM screen.
- With the time filter, the **no time filter** setting corresponds to the default during conversion from older zenon versions to more recent versions in IMM screens.

9.18.13 Graphics improvements with tree view and different screen resolutions (F 133678)

Highlighted entries in the tree view are now shown with the same colors as configured lists.

The background of the tree view and unselected entries remain unchanged and use the color properties of the control element.

For screens with a different DPI resolution, the symbols and checkboxes in the tree view are shown in a size that corresponds to the text of the tree view.

10 HTML Web Engine

Changes and new functionalities for the HTML web engine:

10.1 Play audio signal or continuous tone (F 148644)

The HTML Web Engine now supports the playing of audio files for audio signals and continuous tones via the **Play audio file** functions as well as **Start continuous tone** and **Stop continuous tone**.

> **Attention**
>
> Audio files must be in the *WAV* format.
>
> The Safari browser and the iPad are not supported.

10.2 Combined element (F 79362)

In the HTML Web Engine, the combined element is now also supported for:

- The setting of numerical values using the standard dialog for **Write set value**.
  Supported properties:
  - **Set value limits static**
  - **Use set value limits from variable**
  - **propose current value**
  - **Set value/change by**
- **Switch**: The element switches the value of a bit variable.
- **Pushbutton** and **Pushbutton On**: The **Reset on exit** property is always activated and also cannot be deactivated.

- Numeric values via write set value dialog and function. The linked function is executed as in the zenon Runtime only after closing the dialog to write a set value. Closing is carried out through successful writing by clicking on **OK** or by canceling.
- **Bitmap settings**
- **Text color dynamic**
- **Text format**
- **Fill**
- **Visibility**
- **Flashing**
- **Position**
- **Reference point**
- **Binary value**
- **Numeric value**
- **Set value limits static**
- **Variable/function**
- Status selection via variable status and text dynamization

10.3 Deployment tool dialog revision (F 138764)

The configuration dialog for the deployment tool has been revised.

The connectors have been grouped together on the second configuration page and the settings for the IIS certificate have been moved to the first configuration page. In terms of content, the configuration remains unchanged.

10.4 Released symbol properties (F 79363)

Released symbol properties are now supported for all properties supported by the HTML Web Engine. This includes all zenon properties of elements that are supported by the HTML Web Engine. Unsupported properties result in an error message when compiling.

10.5 Permanently monitored variables (F 148664)

Permanently-monitored variables are now available in the HTML Web Engine. This is the name for variables that call a function when their value is changed.
For these, the following applies:

- The variable must have at least one limit value.

- At least one limit value has a linked function that is supported by the HTML Web Engine.

The HTML Web Engine checks for **Permanently-monitored variables** whether the limit value for this variable has been violated. If a limit value violation is found, the function saved in the limit value is executed.

Attention: These variables are not identical with the variables for which the **Permanently read variable** property has been activated in the zenon. In zenon, this property causes the variable to be assigned to the driver and thus all changes on the PLC are always reported to the zenon. In the HTML Web Engine, a decision is made automatically whether a variable must be continuously read by Runtime. For example, if an audio signal is to be played automatically in the event of a limit value violation.

10.6 Write set value via element (F 126585)

Write set value via an element is now also possible for the **Dynamic text** and **Numeric value** elements.

11 zenon Logic

zenon Logic is the programming environment integrated into zenon in accordance with IEC 61131. It is available as Editor and Runtime (Soft-PLC) for zenon Supervisor and zenon Operator.

11.1 zenon Logic Runtime for Windows (standalone installation) is available (F 66551)

The zenon Logic Runtime for Windows is now also available as a standalone installation.

11.2 Standalone project mode for driver simulation projects (F 135540)

The zenon Logic Workbench is started in standalone project mode for driver simulation projects.

The project cannot be renamed in the zenon Logic Workbench.

11.3 Automatic generation of communication settings when creating a zenon Logic project in zenon (F 133136)

By activating the **Access to externally visible variables** property, all the necessary settings for communicating with a zenon Logic project are generated.

11.4 Extension of the documentation on the zenon Logic Runtime communication settings (F 1494412)

The documentation of the **Extended settings** (communication) of the zenon Logic Runtime has been extended and supplemented by additional information.

11.5 New properties for the parameterization of zenon Logic projects in the zenon Editor (F 137052)

In the zenon Editor, new parameterization properties are now available for each zenon Logic project selected.

In the **Runtime** property group, you can now find:

- **Event buffer size**
- **Max. number of subscribed variables**

11.6 Size limit for structure data type (F 153901)

For the communication of B&B variables with structure data types or user-defined data types with zenon, the **Complex variables in separate segments** option must be activated in the zenon Logic Workbench. You can find the option under **Project**, **Parameter...** in the **Runtime** group. The size of the structure definition per project may not exceed 128kb. The current size of the definition for complex data types is displayed in the compiler output.

12 Programming interface

12.1 AlarmListSelectionChanged: Changed behavior from version 7.50 on (B 156637)

The event behaves differently depending on the zenon version:

- **Up to and including zenon 7.20:** If all alarms in the alarm message list are deleted, the **AlarmListSelectionChanged** occurs again. There is no entry in **obItem**.
- **From zenon 7.50** The event no longer occurs with a completely empty list. If it is used in order to save properties of the selected entry, this information is also still present if there is no longer an alarm.

12.2 Enhancements in the object model

The "Changed" event in the IWorkspace class has been renamed "WorkspaceChanged".

The new ServiceGridAccessPermission property of the ServiceGridAccessPermissionLevel type has been added for the IVariable class.

The ServiceGridAcessPermission property is an enumeration with the possible values None, Read, ReadAndWrite

USER ADMINISTRATION

The IUserAdministration class has been extended by the new Saved event. This event contains three lists:

- IModifiedUser
  - Identification (STRING)
  - IUser (zenon user object)
  - UserAdministrationModifiedStatus
- IModifiedUserGroup
  - Name (String)
  - IUserGroup (zenon user group object)
  - UserAdministrationModifiedStatus
- IModifiedFunctionAuthorization
  - Level (INT)
  - UserAdministrationFunctionAuthorization

VARIABLES

New GetServiceGridVariables method with the enumeration ServiceGridAccessPermissionLevel with the possible values None, Read, ReadAndWrite. The result contains a STRING list of all variable names that this property can access.

SCREENS

New GetCurrentEditorScreen method for the IScreenCollection class. An object of the IScreen type is returned as a result.

The ElementType enumeration has been extended to include the HtmlElment entry.

PRODUCTION & FACILITY MANAGER

The IScheduleCollection class has been extended to include the ParentSchedule property of the ISchedule type.

12.3 Driver - enhanced access via zenon API (F 127220)

The configuration of drivers with the zenon API has been enhanced.

The API interface was enhanced for version 8.10 with the following drivers:

- **[Driver name]**
  Driver name.*exe*

13 Drivers

13.1 New drivers

The following new drivers have been developed for zenon version 8.10.

13.1.1 ISPIP - HEKATRON BMZ Driver (F 125422)

The new driver communicates with Hekatron fire alarm systems using the ISP-IP protocol.

The driver supports:

- Communication with main control centers and subordinate control centers is supported.
- Commands for status changes
- Status messages in accordance with CAMP in read direction.
- Analog messages in accordance with CAMP in read direction

The connection is monitored by a watchdog.

13.1.2 Predictive Analytics (F 152810)

The **Predictive Analytics** driver is now available for the use of zenon Analyzer forecast data in the zenon Runtime.

With **Predictive Analytics**, you get predictions from zenon Analyzer as variable values for:

- Time-based predictions
- Value-based predictions

You can request these as:

- Triggered predictions
- Predictions with schedule

zenon Analyzer calculates the predictions. The **Predictive Analytics** driver provides these variables in the zenon Runtime.

- The Analyzer Server communicates its offline/online status to the **Service Hub**.
- On the basis of this, the **Predictive Analytics** driver recognizes the available Analyzer Server.
- Via the **Service Hub**, the **Predictive Analytics** driver requests the following from the Analyzer Server:
  - Lists of available databases
  - Lists of available content
  - Polling predictions
- Spontaneous communication: Based on the schedules in the content data, the **Predictive Analytics** driver can subscribe to the **Service Hub** for predictions. Regardless of the subscription, the Analyzer Server sends out the forecast data according to the schedule. The **Service Hub** receives these data from the Analyzer Server and forwards it to all the subscribers of the respective schedule.

13.2 System driver

13.3 IEC 61850

13.4 IEC 60870 driver supports several variables with the same address (F 142766)

The IEC870 driver (master) supports several variables that have the same Information Object in the PLC (in 870 slave), meaning the variables have the same **COA** and **IOA** addresses and the same transmission direction (direction).

Requirement: the variables have the same ASDU Typ, for example: 'single-point information' *T01*, *T02* and *T30*.

14 Tools

14.1 Startup Tool: Button Tools (F 79205)

In the **Startup Tool**, the **Tools** button to start applications is now also available if no zenon products have been installed. It is thus also available for example if only zenon Analyzer has been installed.

14.2 3D Integration

The **3D Integration** manual has been separated from the Tools manual.

This manual is available in print as a separate PDF file. This manual has been integrated into the main nodes in the online help.

14.2.1 3D configurator - support for zenon structure variables (bug 127545)

zenon structure variables can now also be used when linking variables in the **3D Configurator**. These are offered for selection in the **3D Configurator** in the **Linked Variables and Functions** area.

14.2.2 Support for files in JT format (S 75570)

The **3D configurator** supports the import of files in JT format. *monolitihic JT files* are supported in versions 8.0, 8.1, 9.0, 9.5 and 10.

15 Variables

15.1 Write set value/modify dialog has been redesigned (F 68410)

For reasons of clarity, the following dialogs have been redesigned:

- Write set value/modify for numeric variables
- Write set value/modify for binary variables
- Write set value/modify for string variables

15.2 Option to search for used and unused reaction matrices (F 125408)

The project analysis can now be used to search for used and unused reaction matrices.

You can jump directly to a linked element from the entries found.

16 Wizards

16.1 Metadata Synchronizer (F 23720, 136588)

The **Metadata Synchronizer** sends metadata from zenon to a zenon Analyzer metadata database.

Requirements: zenon Analyzer 3.30 or higher and zenon 8.10 or higher.

The **Metadata Synchronizer** replaces the Export Wizard.
The main difference between them is that:

- All data that can be processed in the zenon Analyzer is automatically transferred to the database.
- Very simplified configuration: Only the connection needs to be configured for each project.
- Analyzer Server and database are easily selected from a drop-down list. No manual entry necessary.
- Simultaneous transfer of several projects to several different databases is possible with a click.
- Actions and errors can be evaluated on the computer with the zenon Editor and on the computer with the Analyzer Server using the diagnosis viewer.
- A global project no longer needs to be used.
  The projects to be transferred are grouped according to target database.
  The following is thus possible:
  - 1 global project and 0-N standard projects:
    Corresponds to the possibilities of the Export Wizard.
  - No global project and precisely 1 standard project:
    Content that normally comes from the global project is taken from the standard project. In this case, the standard project is considered as the global project and standard project.

  Note: Configuration without a global project but with a standard project is not possible.

Entries from zenon are largely validated before transfer. Errors are corrected. If correction is not possible, the respective object is excluded from synchronization. All validation errors are logged in the diagnosis viewer as a warning and displayed in the zenon Editor in the output window.

16.2 Project Backup Comparison Wizard has been removed (F 138333)

The Project Backup Comparison Wizard has been removed without replacement and is no longer available from version 8.10 on.

16.3 Switch from VSTA to add-in (F 138333)

A number of wizards have been switched from VSTA to add-in.

The following are now available on the basis of an add-in:

- **Energy Wizards**
  - **Driver Simulation**
  - **IEC850 Driver Configuration Wizard**
  - **IEC 61850 SSD Import Wizard**
- **Everywhere Essentials QR Code Generator**
- **GIS Editor**
- **Language Table**
  - **Language Table Wizard**
  - **Language Translation Wizard**
  - **System Text Wizard**
- **Meaning and Waterfall Chart Wizard**
- **Metering Point Administration**
- **Pharmaceutical Wizard**
- **Project Configuration Wizard**
- **Sankey Wizard**
- **WinCC Import Wizard**
- **XML Export Wizard**

17 Important information

17.1 ActiveX Controls

If special ActiveX controls are developed, the following has to be considered:

If the DISPATCH – which is passed in the **zenonInit** event of zenon – is saved in the ActiveX control, an **AddRef** has to be carried out because this DISPATCH is only valid within the**zenonInit** event. If "**AddRef**" is not called, a crash of the entire Runtime will be the result. Additionally, a release has to be performed in the "**zenonExit**" event.

17.2 Buttons and screen elements with screen-type specific functions

Buttons and elements with screen type-specific functions may only be used once on a screen. If there are identical elements on a screen, all duplicates are removed during compilation.

Example: If a button is copied and pasted in the same screen, the copy is removed during compilation.

Exception: Several containers can be created in a *Faceplate* screen.

17.3 Integration of VBA wizards and VSTA wizards

All VBA wizards are saved in the file called *ZenWorkspace.vba* by the zenon Editor. All VSTA wizards are saved in *Workspace AddIn*.

When performing a new installation, these files will only be copied to your computer if they do not already exist in the installation folder. Existing VBA/VSTA files are not overwritten, because all your changes would be deleted in this case. If you want to use our new wizards or modified ones, you can import them manually via the menu "**File – Update Wizards**" in the Editor. At this you can decide yourself which wizards you want to overwrite.

17.4 Complex vector graphics

Please note when configuring process screens. When using many or complex vector graphics, loading screens in the Runtime can take a long time.

17.5 Converting projects

Before you convert a project, please read back all Runtime changeable files (User Administration, Standard Recipes, Recipe Group Manager, Scheduler/PFS) into the Editor. This ensures a complete data conversion and makes sure that none of the changes made in the Runtime are lost. After converting to the new version, create all Runtime files once including Runtime changeable data.

Note: You can find important information for the conversion of certain versions in the zenon help in the Project conversion manual.

CONVERTING MULTI-USER PROJECTS

Multi-user projects can only be converted if no elements are checked out. This means that all people configuring projects have to **accept** their changes first.

If this is not possible for some reason, you have to create a project backup of the project on the project database server (central project database) and then immediately restore it. This resets all the **Under construction** information.
Attention: All changes in the local project versions are lost!

The conversion can only be done on the PC, on which the central project database resides. If there is no Editor on the PC (standalone database server – no longer supported), you must install the Editor first. Only after that can the conversion be done on this PC.

CONVERTING PROJECTS WITH A VERSION PRIOR TO 5.50

When a project that has been created using a version prior to 5.50 is activated, the profiles contained in the structure schedules are converted. The profiles are no longer supported in version 5.50 or later versions. For each profile, a structure schedule is created, containing the linked schedules. The linked schedules contain all the times which fall within the profile's activation/deactivation times.

The day information contained in the profile schedule is input into the calendar.

The configuration process can be viewed in the Editor's output window.

CONVERTING PROJECTS IN VERSION 6.01 AND 6.20

zenon projects in version 6.01 and 6.20 can no longer be directly read back in zenon 7.10 or higher.

Background: Versions that are based on the MSDE (SQL Server 2000) are not compatible with the SQL Server 2012 used in zenon 7.10.

Solution: First convert the project in zenon 7.0 and then in 7.10 or higher.

CONVERTING PROJECTS FOR 7.20

For compatibility with version 7.20, another option - "*Most recent version*" - is available for the Create Runtime files property. This can be selected by clicking the entry *7.20 SP0 + [most recent build no.]* in the drop-down list.

Selecting this option makes the Runtime files available for the current build of version 7.20. Functionality that has since been incorporated into version 7.20 after the official release of 7.20 is thus supported. This is applicable most of all for enhancements to drivers that are now supported with this option. Please note that to use the most recent build, you must have zenon 7.20 installed on your computer.

Note: The 7.20 SP0 selection compiles the Runtime files - as before - to the default settings of 7.20 SP0.

17.6 MS-ActiveX element DBGrid32.ocx does not work

There a several problems known in context with the use of Microsoft ActiveX element **DBGrid32.ocx** in the Runtime. Therefore please use other ActiveX elements such as **MSDATGRD.ocx**.

17.7 Reload of projects with Simulator driver variables

Simulator driver variables, not projected as HD variables, are reset to the value *0* with the function "**Reload**". Only HD simulator driver variables keep their value after reloading.

17.8 Network access - Firewalls

Different components of zenon try to access the network and can cause an alarm by firewalls or personal firewalls. If you want to use the network or the zenon Remote Transport, you have to unlock the according TCP/IP ports.

The following zenon components result in network access:

- Administration service (*zenAdminSrv.exe*)
- Editor (*zenone32.exe*)
- Database server (*zendbsrv.exe*)
- Diagnosis Server (*zenLogSrv.exe*)
- OPC Server (*zenOPCsrv.exe*)
- Process Gateway (*zenProcGateway.exe*)
- Remote Desktop (*zenVncSrv.exe* and *zenVncCli.exe*)
- Network server (*zennetsrv.exe*)
- Transport service (*zensyssrv.exe*)
- Drivers with TCP/IP connections
- zenon Web Server (*zenWEBsrv.exe*)
- zenon Logic Workbench
- zenon Logic Runtime

17.9 Process Desk – killing tasks

The **zenon Process Desk** allows you to end frozen tasks.

Attention: Some drivers need a certain follow-up time, because they write a process image on closing. Premature closing can result in data loss! Use this option only in case of emergency, when you are really sure, that the task will not close on its own.

17.10 Saving reports of the Report Generator in the Runtime

Please be aware that on saving reports in the Runtime, all functions are replaced by the current contents of the cells (numbers). The functions in these reports (**.xrs** files) are no longer available. Additionally, these reports can no longer be edited in the Editor. So please use the MDI function "**Save as**" so that the original reports from the Editor are not overwritten. Moreover, we recommend to define the original reports as *read-only*.

17.11 The database server service must be entered correctly in the Startup Tool

Beside the versions you can also change the data base server with the **Startup Tool**. If you use this function, please note:

Between version 6.21 SP0 and 6.22 SP0 the SQL Service was entered incorrectly in the *zendb.ini* by the setup. This was no problem because the **zenDBSrv** did not consider the value. As of 6.22 SP1 this is the case again.
If you read the values using function **Read from zenDB.ini**, the values are stored wrongly in the **Startup Tool**. You must check existing entries and change them if necessary.

17.12 zenon Logic Intellisense is slow

For large programs the Intellisense function of the zenon Logic Workbench can cause the project to open very slowly. In this case you should deactivate the Intellisense function in the straton Workbench.

17.13 Transport service Autostart

The transport service (**zensyssrv.exe**) is normally started automatically by the operating system when a user logs in. If the transport service is not started, the computer cannot be reached via the Remote Transport.
At a new installation it is restarted after the computer has rebooted.
If you accidentally delete the entry for the automatic start from the registry, you can restore it with the help of command *Register* in the Startup Tool. At this the transport service is also automatically restarted.

17.14 Overwriting Runtime files

When creating Runtime files in the zenon Editor it can happen, that files changed in online operation are overwritten. This occurs with the following modules:

- Recipegroup Manager
- Production & Facility Scheduler or Scheduler
- User administration

- Standard Recipes

In order to guarantee that data created in runtime (recipes, schedules etc.) is not lost when creating Runtime files, there is a new tab in the dialog for project configuration: **Runtime changeable data** For the modules mentioned above you can define here whether the concerned files should be overwritten when Runtime files are created. If the checkboxes are not active, the files are overwritten!

This behavior is also true for the Remote Transport, when the Runtime files are to be transferred to another computer. So these checkboxes also apply here. If you want to transport all files to the remote system, deactivate all checkboxes. Otherwise the corresponding data will not be transported.

When creating Runtime files and when using Remote Transport, a message appears in the output window indicating that the concerned files were not overwritten.

The standard setting is: Runtime Files are not overwritten!