COPA-DATA
do it your way

zenon manual

Release notes 7.11

v.7.11

Contents

1. Welcome to COPA-DATA help

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 (mailto: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 (mailto: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 (mailto:sales@copadata.com).

2. Revision text zenon 7.11 SP0

3. General

3.1 Update the online Help (RQ 4621)

The **Documentation Download Tool** program installs the current help in PDF format and updates the online help. The use of a proxy server is possible in the process.

3.2 Lot filter amended and adjusted (RQ 4725)

The lot filter and its configuration were harmonized and adapted throughout all modules and functions.

COMPATIBILITY

- The **Lots** setting in the **Time** tab is now in the **Lots** tab and is called **Display lot selection dialog**.
  Difference: Up to version 7.11, the dialog could be configured in the time filter with the Lot selection and the filter could be switched in the **Lot** tab of the filter.
  From version 7.11, only one of the two is possible. When converting a project, the Display lot selection dialog option is selected and the time filter is set to its fixed default value of Relative time filter with one hour.
  - **Note on XML import:** When converting a project from version 7.10 to version 7.11 via an XML export and XML import, there is a visual error. The conversion is carried out for the XML import with absolute time filter with one hour instead of with relative time filter with one hour. This has no effect in Runtime because the setting is not evaluated when the dialog is called up. However when the filter is opened in Runtime or in the Editor, an error message is displayed, because the start time is later than the end time.
- The possibilities for last lots have been expanded. Completed and ongoing lots can be displayed and both can be combined. If the current lots or the combination of current and completed lots

are selected and the project is compiled for a version before 7.11, the completed lots are shown in Runtime.

- The following options are available when filtering for archives and lot names:
  - `No filter`: Corresponds to the earlier setting * as filter
  - `Static`:
  - `From variable`: new setting

When converting from projects created in version 7.10 or earlier, the "*" or empty string setting is converted up as `No filter`.

If Runtime files are created for versions before 7.11, only the options `no filter` and `static` can be converted correctly. With `static`, the string is written as it is; with `no filter` "*" is saved as a filter. The `From variable` option is ignored; no filter is set.

3.3 File version: New build numbers

The numbering of the build versions has been changed with zenon version 7.10.

UP TO ZENON 7.00:

Version numbers in zenon were counted up to version 7.0 inclusive as follows:

- The build number was always incremented by one depending on the main version and the service pack.
  For example:
  - **700SP0 Build 1**
  - **700SP0 Build 2**
  - etc.

FROM ZENON 7.10

The new method of counting creates a serial number for each build in accordance with the specification from Microsoft. This is automatically counted higher in defined time intervals, regardless of whether a build is created in this time or not. Build numbers for new main versions simply go higher.

That means:

- Build numbers start for new main versions, such as zenon 7.11, for example, not at 0 again.
- A build for zenon 7.10 that is created after a build for zenon 7.11 has a higher build number. For example:
  - 7.11 0 6838
  - 7.10 0 6840
  - 7.11 0 6844

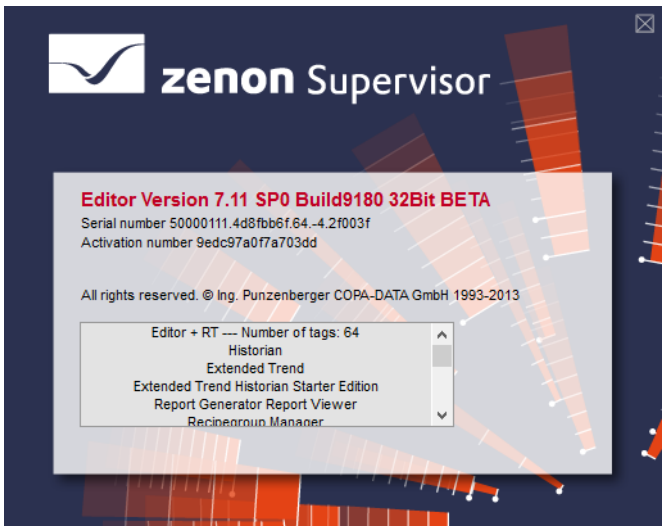
Important advantages of the new counting method:

- Each build number only exists once.
- Each build is clearly identifiable.

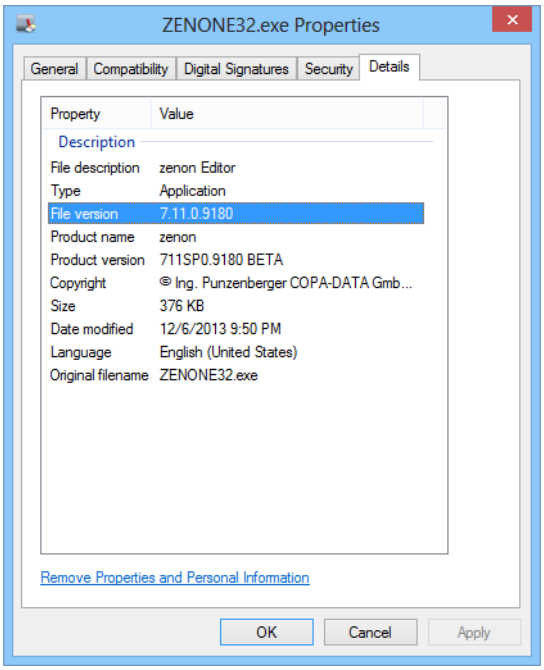
IDENTIFYING VERSION NUMBERS

You can find the respective current version number:

- in the zenon Editor at: `Help -> About ...`



- In the properties of a zenon file: `Detail -> File version`



(the **`product version`** that is stated in the details is for internal information only and does not provide information on builds.)

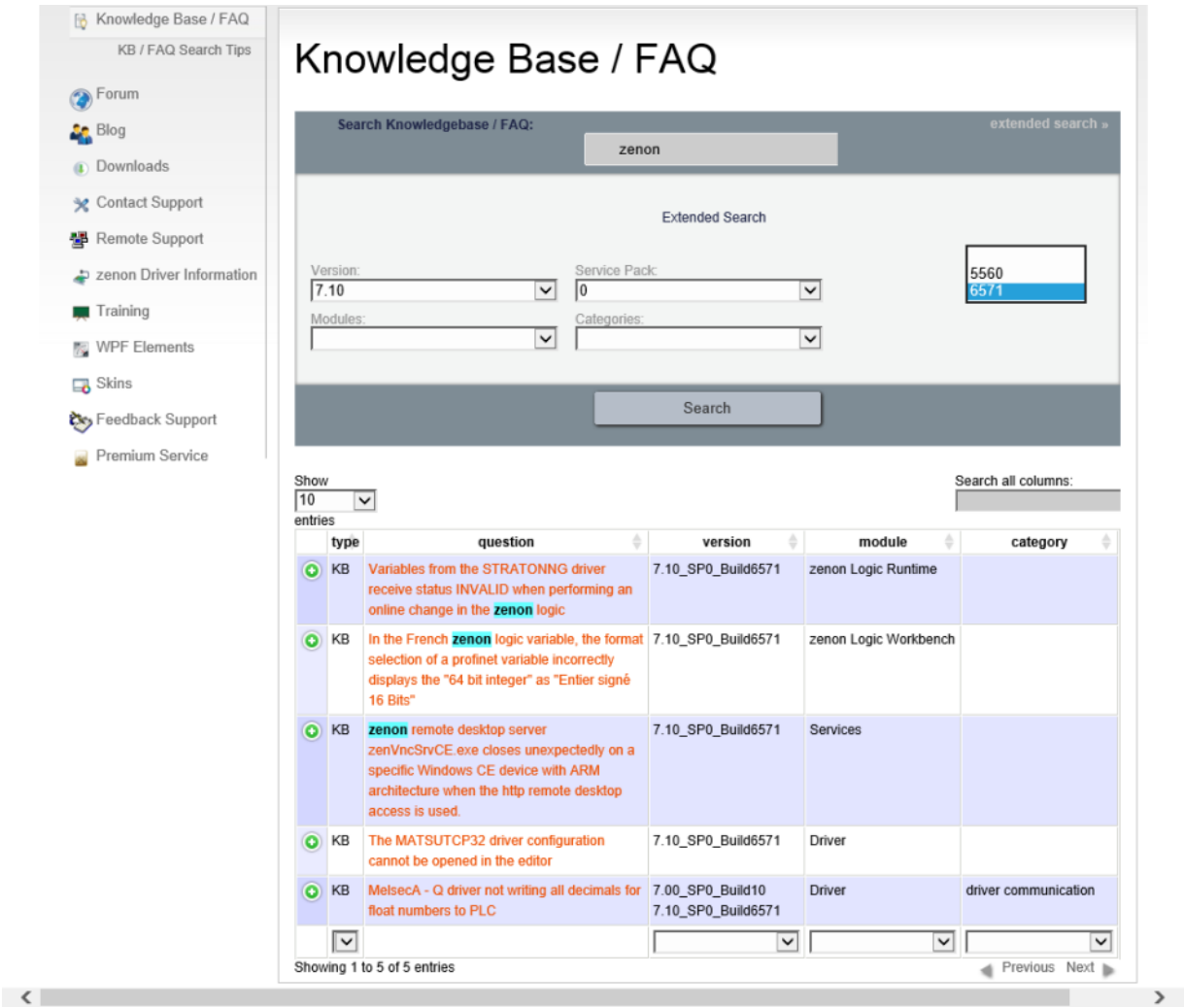
FINDING INFORMATION ON CHANGES IN BUILDS

You can find all information about changes in current builds for zenon from version 6.51 on the COPA-DATA website.

To find changes:

1. Open the COPA-DATA Knowledge Base
2. Click on **`extended search`**
3. Enter a search term.
4. Select the version from the drop-down list in the `Version` field.
5. Select the number of the service pack from the drop-down list in the `Service Pack` field
6. Select the build number from the drop-down list in the `Build` field
7. click on **`Search`**

8. All changes for the selected build that relate to the search term are shown



3.4 Editor compatibility with versions 6.20 SP4, 6.21 SP0, 6.21 SP1, 6.22 SP0, 6.22 SP1, 6.50 SP0 and 6.51 SP0, 7.0 and 7.10

The Editor of version 7.10 can also create Runtime files for the versions 6.20 SP4, 6.21 SP0, 6.21 SP1, 6.22 SP0, 6.22 SP1,6.50 SP0 and 6.51 SP0, 7.00 and 7.10. This makes it possible to operate different Runtime systems from one development environment. Functions not supported in older versions will not be available there. When creating projects for older versions, please make sure that you do not use any functions that are not supported by older versions.

With this new functionality, the user can choose whether he wants to update only his development environment to the newest version, or also his Runtime systems.

3.5 Installation

MSDE INCOMPATIBILITY

zenon from Version 7.10 cannot be installed on systems on which the **Microsoft SQL Server Data Engine** (**MSDE**) is already installed. This affects systems on which zenon 6.20 or an earlier version has been installed most of all. You must first uninstall the MSDE database service.

SERVICES IN 64 BIT OPERATING SYSTEMS

If after installing 7.10 an older zenon version is installed the old setup will re-register the services to the 32 Bit variants. This may cause problems in the 64 bit version of zenon. For this reason, after installing the older zenon version the services have to be registered again to 64 Bit. This can easily be done with a batch file which is contained on the installation medium in the folder:
`\Additional_Software\Register Admin Service and Log Service x64`

START COPA-DATA MULTIPLE NETWORK PROTOCOL DRIVER

During the installation of zenon, the **COPA-DATA Multiple Network Protocol Driver** (**cdprotdrv.sys**) is installed. To start the driver, the operating system must be restarted after installation.

3.5.1 Display of build number and installation issues (RQ 4746)

The build number of the version to be installed is now shown during installation.

If system errors that may prevent installation are discovered before installation, the cause of the error without information on how to rectify this is shown in a separate report. For example, pre-existing software that needs to be updated.

3.5.2 Installer for the Project Translation Interface (RQ 4554)

A separate (zenon-independent) installation setup is provided for use of the project translation interface.

3.6 Converting projects

Before you convert a project, please read back all Runtime changeable files (User Administration, Standard Recipes, Recipegroup Manager, Scheduler/PFS and Message Control) 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 RT 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 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.

CONVERSION OF PROJECTS 6.20 AND EARLIER

zenon projects in version 6.20 or older 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.*

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

3.6.1 Converting Recipegroup Manager database

From version 7.10, the MS Access database is no longer supported in the Recipegroup Manager. When opening an existing project, the data storage is automatically converted to binary data. A project backup is created in the process. This makes it possible for you to open the project with the version in which it was created.

CONVERSION WITH 64-BIT EDITOR

The 64-bit Editor cannot access the MS Access database. To convert this, open the project in the 32-bit Editor first. There is a mechanism available that with the RGM setting `DataSource:MS AccessDB` automatically transfers the data to binary files. The property `DataSource` is no longer available from version 7.10. If the data storage has already been set to binary files, the database data is rejected. For this, the following applies:

- Copying the data from the Access database to binary data storage only occurs with conversion in the 32-bit Editor. The data from the Access database is always rejected with 64-bit.
- When converting under 64-bit, a check is made to see if the data storage of the RGM is set to MS Access. In this case, corresponding information with notification of conversion is displayed in the 32-bit Editor.
- If, when copying over in the 32-bit Editor, it is established that at the target (binary files) data has already been configured, the user is asked which data is to be kept (MS Access or binary). MS Access and binary data cannot be combined.

After conversion, you can also open and edit the project with the 64-bit Editor.

If you want to convert the project again, use automatically-created backup during the conversion.

ADAPTATION OF RECIPE GROUP NAMES AND RECIPE NAMES TO 32-BIT ZENON

Recipe group names and recipe names that contain invalid data for "binary data" are automatically renamed when converting a project to the 32-bit version of zenon 7.1x. The renamed elements are shown in the output window. After conversion, check the output window for corresponding messages!

Attention: If recipe groups or recipes are renamed, the following elements in the project must be manually checked and amended:

- All RGM functions
- Variables, that may contain recipe group names or recipe names
- VBA code that may contain recipe group names or recipe names

3.7 Licensing (RQ 4687, RQ 4705)

It is now also possible to license soft licenses through COPA-DATA USA directly.

The usage possibilities of a Client license have been stipulated in more detail:

You can use client licenses if:

- The start project is a standalone project or a client
- The start project uses a maximum of 64 days when a license is required, if it is not a client
- All subprojects are clients

3.8 Runtime compatibility with versions 6.20 SP4, 6.21 SP0, 6.21 SP1, 6.22 SP0, 6.22 SP1, 6.50 SP0 and 6.51 SP0, 7.0 and 7.10

Runtime compatibility with versions 6.20 SP4, 6.21 SP0, 6.21 SP1, 6.22 SP0, 6.22 SP1, 6.50 SP0 and 6.51 SP0, 7.00 and 7.10

In the Runtime 7.10 SP0, it is possible to start projects from versions 6.20 SP4, 6.21 SP0, 6.21 SP1, 6.22 SP0, 6.22 SP1, 6.50 SP0, 6.51 SP0, 7.00 and 7.10 without converting them first. Mixed operation is also possible. This means you can load projects from versions 6.20 SP4, 6.21, 6.22 and 6.50, 6.51, 7.00 and 7.10 simultaneously in multi-project administration. This also works in network operation. For example, you can start projects from different versions with a WEB Client.

Exception: Runtime files for the Batch Control module up to version 7.10 are not backwards compatible. For details, see the Batch Control chapter.

3.9 Enhanced language switching (RQ 4110)

The ability to switch the language of texts has been expanded to:

- Editor:
  - Users
  - User groups
  - Authorization levels
- Runtime:
  - Users by means of the `Change user` function
  - Network -> Change set value
  - Network -> Get operating authorization

- IMM: Screen -> File reference
- IMM: Screen -> Master data -> History -> Maintenance work
- IMM: Screen -> Edit device or new device -> Maintenance work tab
- IMM: Screen -> List of maintenance work -> Carry out maintenance
- IMM: Screen -> List of maintenance work -> Carry out repair
- IMM: Screen -> List of maintenance work -> History -> Print list

3.10 System Information Collector on installation medium (RQ 4734)

The **System Information Collector** (**SIC**) tool is also provided, in addition to the installation on the computer, in the installation medium in the path `\Additional Software\System Information Collector`.

3.11 Supported Operating Systems

Operating system	Required service pack					
	zenon Editor	zenon Runtime	zenon Web Server	zenon Web Client	zenon Logic Runtime	zenon Analyzer Server

Windows Vista (Business, Enterprise and Ultimate version, x86 and x64 versions).	SP 2	SP 2	SP 2	SP 2	SP 2	No support
Windows 7 (Professional, Enterprise and Ultimate version, x86 and x64 versions).	SP 1	SP 0	SP 0	SP 0	SP 0	SP 0 - x64
Windows Embedded Standard 7 (if all necessary operating system components exist).	No support	SP 0	SP 0	SP 0	SP 0	No support
Windows 8 and 8.1 (Standard, Professional, Enterprise version, x86 and x64 versions)	SP 0	SP 0	SP 0	SP 0	SP 0	SP 0 - x64
Windows Embedded 8 Standard (if all necessary operating system components exist).	No support	SP 0	SP 0	SP 0	SP 0	No support
Windows Server 2008 (All editions with the exception of Core)	SP 2	SP 2	SP 2	SP 2	SP 2	No support
Windows Server 2008 R2 (All editions with the exception of Core)	SP 1	SP 0	SP 0	SP 0	SP 0	SP 0 - x64
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 - x64
Windows CE 6.0 (ARM and x86)	No support	SP 0 - zenon Operator only	SP 0 - Pro Light only	No support	SP 0	No support
Windows Embedded Compact 7 (ARM and x86)	no Support	SP 0 - zenon Operator only	SP 0 - Pro Light only	No support	SP 0	No support

- All operating systems are supported in the multi-lingual version.
- Windows 8 RT is not supported for reasons relating to the system.
- Itanium processors are not supported for any operating system.

3.12 zenon Logic Workbench

zenon Logic Workbench 8.6 is integrated into zenon.

4. Editor

4.1 Keyboard operation harmomized (RQ 3166)

The operation of the keyboard shortcuts has been harmonized. To do this, the inconsistent information on possible keyboard shortcuts in menus has been replaced by the **&** character. Existing keyboard shortcuts are explained by information in menus and in the documentation.

5. Network (RQ 4669, RQ 4670, RQ 4671, RQ 4672, RQ 4740)

The redundancy in the zenon network was supplemented with additional modes: The modes `Non-dominant` and `Rated` have been added to the existing `Dominant` mode. As part of this, the project properties in the `Network` group have also been renamed:

- `Server` to `Server 1`
- `Standby Server` to `Server 2`

Projects converted from older versions continue to contain the `redundancy mode` `Dominant`. This means that the computer entered as `Server 1` always takes on the role of the Primary Server after a restart.

From Version 7.11, newly-created projects are in `non-dominant` mode by default. In this mode, both servers have an equal right to take on the role of Primary Server. Which one actually takes on this role depends on which computer is ready for use first. The current Primary Server keeps its role until it is no longer available, or until the zenon `Redundancy switch` function is called up.

In `rated redundancy mode`, the zenon network can automatically carry out redundancy switching, depending on configurable conditions. Both servers carry out their own ratings using their own process

screen and compare the evaluations to one another. Therefore the server that has better connections to controllers can automatically upgrade to Primary Server. New configuration properties have been created for rated redundancy.

6. Everywhere Server by zenon (RQ 4429, RQ 4600)

Everywhere App by zenon visualizes a configuration of the zenon Editor on a smartphone.

The **Everywhere Server by zenon** is used for the provision of data. This runs - if activated - with zenon Runtime. The Everywhere Server also starts when Runtime is started.

Depending on the project configuration, "write access" is also possible from zenon 7.11.

The Everywhere Server is configured and certificates are created with two new tools:

- Everywhere.Config.exe
  For the configuration of the Everywhere Server
- Everywhere.CertificateCreator.exe
  For the configuration and creation of certificates

The equipment model, variable selection, value views and alarm screens are shown.

7. Runtime

7.1 Runtime as a service (RQ 1454)

zenon Runtime can now automatically be started as a service by the **zenStartupMgr** service. To do this, the file **zenStartupMgr.exe** must be registered as a service and the desired Runtime must be entered in the Startup Tool in the **Service startup** tab.

8. Screens

8.1 Extended Trend - Amended screen switching (RQ 4620)

The dialog for the screen switching to an Extended Trend screen was redesigned. Filters are now configured using tabs. The dialog for the configuration of curves has remained the same.

8.2 New equipment model screen (RQ 4507)

There is a new `equipment model` screen type available.

With an equipment model screen, the following is possible in Runtime:

- Other, already-open screens can be filtered for certain equipment groups
- All functions linked to a certain equipment group are automatically listed consecutively

Filtering for an equipment group always has an effect on the screens that have already been opened. If screens are called up again or reloaded, they are displayed again without the equipment model screen filter.

8.3 New faceplate screen type (RQ 4617, 4620, 4658, 4661, 4725)

A new `Faceplate` screen type has been introduced.

Faceplates contain screen containers to which other screens can be linked. For example, with faceplates:

- Several screens can be displayed in a screen at the same time
- Several time filters can be applied to the same screen type at the same time
- Data from a screen can be applied to another screen using a filter

8.4 Calling up templates more than once (RQ 4617)

Frames can now be called up several times in Runtime.

8.5 Move frame to the foreground (RQ 4618)

With this function, screens that are covered by other screens in Runtime can be moved to the foreground. A frame is selected - and a monitor assignment if multiple monitors have been configured. In Runtime, when executed, all instances of the defined frame are moved to the foreground of the selected monitor.

9. Functions

9.1 Functions for templates revised (RQ 4617, RQ 4618)

The dialogs for the following functions have been revised:

- Close screen
- Close frame
- Focus: set to frame
- Screen: Move center
- Alarms: acknowledge flashing

Individual specific templates can now be selected and assigned to certain monitors with multi-monitor administration.

9.2 Switching in simulation mode if not all variables have a value (RQ 4669)

From zenon 7.11 onwards, switching to simulation mode by means of an **`activate/deactivate project simulation`** function is also possible if not all variables have a value or are invalid. To do this,

the dialog for the configuration of the function has been supplemented with the properties `wait for all variables` and `maximum waiting time`.

9.3 Switching direction in the redundancy switching function (RQ 4740)

For the `Redundancy switch` function, a new dialog to configure the switching direction and suppression time has been introduced:

- `Switching direction`: `Toggle`, `Server 1`, `Server 2`
- `Suppression time [min]` - for `evaluated` `redundancy mode`

10. Scripts

10.1 Usability optimization (RQ 3916)

The use of scripts has been optimized:

- Options to display the use of a script and display unused scripts have been added.
- Functions can be added from the tool bar or context menu directly.
- Functions can be arranged in order and included in scripts by dragging & dropping.

11. Symbol library (RQ 3713)

The handling of symbols has been updated:

The global project now has its own symbol library. This is treated like a project symbol library and provides its symbols to all projects in the workspace.

The **`global symbol library`** was renamed to **`general symbol library`**.

12. Variables

12.1 Variable name

The rules for the unique names of variables have been enhanced. A variable name:

- Maximum length: 128 characters
- the characters **#** and **@** are not permitted in variable names.

13. Modules

13.1 Historian

13.1.1 Enhanced lot filter (RQ 4686)

Filtering for lots has been enhanced. When switching screens, filtering for lots is now supported by:

The new system driver variable, **`last lot selected`**, contains the last selected lot names in the online lot selection.

13.1.2 SQL Server values can be edited (RQ 4684)

In the archive editing in Runtime, values from archives that have been saved in the SQL Server can be edited. However only values can be changed. Time stamps cannot be edited. Also, no values can be deleted or added.

13.1.3 Templates for aggregated archives (RQ 4000)

Templates for aggregated archives make it possible to import existing aggregated archives into base archives. Structures that have already been configured can be easily reused this way.

There are pre-configured templates available that are supplied with zenon. In addition, individual configurations can be saved as templates.

Templates can only be imported for base archives with cyclical scanning. These archives cannot have any aggregated archives yet.

13.2 Alarm

13.2.1 ID for alarm group, alarm class and alarm area can be edited (RQ 4076)

The ID (`No.` property) for alarm group, alarm class and alarm area can be issued individually. Individual IDs can therefore be created for all sub-projects with multi-project administration. When creating Runtime files, a message in the output window informs you of any possible conflicts. However this does not prevent the same IDs being issued. Each number can be used only once in each area within a project only.

13.2.2 Visual acknowledgment of alarms (4655)

When acknowledging alarms, it is now also possible to acknowledge an alarm as "seen". This visual acknowledgment can be executed more than once by different users before the alarm is acknowledged. It is therefore possible, for example, for several alarms that depend on one another to be labeled as "seen" by the users in charge before they have been acknowledged.

13.3 Batch Control

In addition to many enhancements in the module, Batch Control has also been optimized with simplified usage. For example:

- Copying and replacing now works in the complete unit tree

- The switching position has been optimized for current recipes and initial switching

13.3.1 Image when activating a phase (RQ 4715)

The writing of an image can now also be instigated with the activation of a phase. This works independently of cyclical writing.

13.3.2 Actions when Runtime is restarted (RQ 4716)

Actions can be predefined for restarting Runtime after closing. These can be defined for:

- `Restart after normal shutdown`
- `Restart on system failure`

When restarting after Runtime has been restarted, the respective status is stored with the information in the recipes. The execution status is also displayed in the unit information. The execution status (numerical and text) in the unit information contains a number and text that corresponds to that of the variables in the screen. Including information on whether triggered by a restart, information on objects with a different status and objects that delay a status change.
Caution: The content of these variables is not compatible between zenon 7.10 and 7.11.

13.3.3 Displaying command parameters with screen switching (RQ 4628)

With version 7.11, in the ***`Parameter list settings`*** *tab in screen switching, the options for* `Display command parameters` *have been enhanced and switched to radio buttons with as many combinable check boxes as desired.*

In terms of backwards-compatibility, this means that backward-compatible writing is only possible if:

- Only one checkbox is set for the changeable parameters
- or the combination of all checkboxes lets all parameters through

If the combination of the checkboxes results in a setting that was not previously configurable with zenon 7.10 or earlier, no parameters are displayed in the list.

13.3.4 Command parameters enhanced with initial parameters (RQ 4630)

Initial parameters have been added to command parameters. A distinction is now made between:

- Initial parameters: Command parameters that are set before the start event.
- Value parameter: Command parameters that are set after the input lock.

NOTE ON COMPATIBILITY

If Runtime files are created for zenon 7.10 or older versions, then the initial parameters and value parameters are treated the same as command parameters again. command parameters from zenon 7.10 or earlier are all converted to value parameters.

13.3.5 Allocating groups and classes to CEL entries (RQ 4716)

CEL information can be allocated to groups and classes. These correspond to the **`alarm/event groups`** and **`alarm/event classes`** created in the project. The respective group or class is also entered in the CEL and can be used for filtering and grouping.

13.3.6 Control strategies (RQ 4627, 4629)

Control strategies make it possible to set parameters for different versions of a phase. Only the command parameters allocated to the control strategy are sent for each control strategy.

13.3.7 Designing lists in Runtime (RQ 4680)

The headers of lists and the filter lines contained therein can now be activated and deactivated. The size of the header can be set automatically or defined as fixed.

13.3.8 Steps in the matrix recipe (RQ 4714)

The individual steps listed in a matrix recipe can be written to variables. The status always relates to the recipe that is currently allocated to the unit. In doing so, only information from the main recipe is used, even if the object that is allocated to the unit is in an operation.

13.3.9 PLC error detection (RQ 4627)

PLC errors can be detected and evaluated.

13.3.10 Replacing linkings (RQ 4716)

Linking of variables and functions can be replaced automatically in units, phases and reactions. This process corresponds to the process for **replacing linking for screen switching** and **replacing linking in the Editor screen**.

13.3.11 Versioning (RQ 4714, RQ 4715)

Master recipes have been given a versioning. In doing so, a copy of an approved or obsolete report is created. This copy is in edit mode and contains a unique version number. The new recipe can be edited, but not renamed. Individual versions, including the source recipe itself, can be deleted. It is possible to filter according to versions for screen switches, the **Create control recipe** function and for reports.

13.4 Command

13.4.1 New command type: auto/remote command (RQ 4633)

Command input will also have, from zenon 7.11 onwards, the new `Action type` `Auto/Remote command`. The new action type is similar to the double command and allows the forwarding of switching commands that arrive via the IEC870 Slave in the Process Gateway or via the API.

Note: The `Auto/Remote command` cannot be linked to a button or a menu. The `Authorization` property group is not available for this command type.

13.4.2 New command action type: Forced command (RQ 4635)

Command input will also have, from zenon 7.11 onwards, the new `Action type` `Forced command`.

This **`forced command`** can, among other things, be used for the configuration of "emergency off" switches that can be triggered by an authorized user. The new type of action is similar to double clicking and allows switching commands, even if the variable does not yet have a value, for example because the general interrogation has not yet been concluded.

The **`forced command`** is executed without taking active `topological interlockings` into account. The properties for configuration do not contain any `interlocking conditions`.

13.4.3 Control element in the command screen with the list of all interlockings (RQ 4654)

An **`Interlockings`** overview box has been added as a new control element for the command screen. This contains the interlockings that are relevant for the action and return variable:

- Text of the interlocking
- Active (yes/no)
- Unlockable (yes/no)
- Unlocked (yes/no)

The `topological interlockings` and the `interlocking conditions` configured for the action are shown in the list.

A new **`Unlock all`** button has been added. This button unlocks all active and unlockable interlockings.

13.4.4 Runtime monitoring via Cause of Transmission only (RQ 4634)

The list of possible `runtime monitoring` processes has been supplemented with the `Via Cause of Transmission only (COT)` property.

The `via Cause of Transmission` process from earlier versions of zenon has been renamed to its actual behavior of `via RV and COT`.

13.4.5 Cancellation of a timeout in runtime monitoring (RQ 4635)

The commands have been given a new `Timeout can be canceled` property. If this property is active and the `Execute` command is started, the **`Cancel`** button can still be operated and the **`runtime monitoring`** can be canceled.

All buttons in the command screen, for example, are therefore active and operable again.

13.4.6 Information on the time stamp of the block (RQ 4654)

In the command screen, the **`lock list`** control element has been supplemented with the **`Timestamp`** column. The timestamp shows when the `response variable` was locked (using the `lock` action).

13.5 User administration

13.5.1 Active Directory user administration with zenon (RQ 4663)

You can access the Windows Active Directory in Runtime with an `Active Directory user administration screen`. You can create, delete and edit organization units, users and user groups and assign them rights in zenon.

Info

Active Directory, AD LDS and ADAM (for Windows XP) are not available with Windows CE.

Attention

Rights that are issued in zenon are applicable for the respective project or the workspace. Rights that are issued in the Active Directory are applicable globally.

If rights have been issued to users or user groups of the Active Directory, then the rights for these users are applicable in all zenon projects!

13.5.2 Automatic logging into sub-projects (RQ 451)

In multi-project administration, users from the global project can be logged into sub-projects and logged out from them automatically.

13.6 Extended Trend

13.6.1 Lot relative

If the `Lot relative` option is selected for screen switching for the Extended Trend, no curve can be configured. If a curve is configured, there is no meaningful display on the screen in Runtime. The action of zenon 7.11 was thus amended.

In zenon 7.11, the `Lot relative` option being activated in Runtime leads to the following action:

- The `lot selection` dialog is no longer shown in Runtime when reloading or changing profiles. No further curves can thus be configured.
- If a curve has already been configured in the Editor, the dialog is also not active in Runtime. The pre-configured curve can therefore not be deleted in Runtime. In order to be able to activate the dialog again, the configured curve must be removed in the Editor.

13.6.2 Automatically select suitable aggregated archive (RQ 4646)

In the screen switching for the Extended Trend, there is an option that automatically selects the appropriate archive for display in Runtime.

If a very large time range is selected in the base archive or zooming out is carried out very often, then very large amounts of data are generally required.
With this option active, only the data from the next aggregated archive is displayed. If the diagram is zoomed in on again, the diagram switches back to the previous archive.

13.6.3 Variables of type string (RQ 4525)

String variables can be added to a trend curve. A Gantt diagram is automatically prescribed as a curve type for these.

13.6.4 Variable detection in the curve list (DEF 30702)

In the extended curve list, the variable detection can also be displayed and it is possible to filter according to this.

13.7 Message Control

13.7.1 Dynamic content for text-to-speech (DEF 30132)

Text-to-speech can now also be configured with content that has been created dynamically for each placeholder in the Message Control module. The same rules as those for the creation of dynamic content for emails apply.

13.8 Report Viewer

13.8.1 Required adjustments for RDL files from zenon7.10 for 7.11

The **`default.rd`**l from zenon 7.10 can have configuration errors. If RDL files are used based on default.rdl for Batch Control in zenon 7.11, it can lead to errors on output. If you want to use the correspondent RDL files with zenon 7.11, make the following changes before use:

- Data set for **`BatchOperationInstances`**
  - The field `OpertionType` must be renamed as `OperationType`.
- **`BatchMasterRecipes`** and **`BatchControlRecipes`**:
  - The field `OpertionType` must be renamed as `OperationType`.
  - Add the data field **`MrVersion`** with the data type `Integer`

- **BatchPhases1**

Add the following data fields:

- `CondPlcError` (data type: `String`)
- `CSName` (data type: `String`)
- `CSDescription` (data type: `String`)
- `CSTag` (data type: `String`)
- `ActiveCSNumber` (data type: `Integer`)

13.8.2 Configuring datasets in the editor (RQ 4498)

Datasets for new RDL files can be individually selected and compiled in the editor from Default.rdl, before the RDL file is configured with the MS Report Builder.

13.8.3 New dataset filter settings (RQ 4485)

The new data set displays the defined time filter and their use by other data sets.

- Data set
- Set filter
- Filter conditions

13.9 Recipegroup Manager

13.9.1 More characters for filter text (DEF 30542)

The input field for the `Filter text` property for variables in the RGM has been extended from `255` to `65535` characters.

14. Tools

14.1 Startup Tool registered for terminal server (RQ 4676)

zenon can now also be registered for use as a terminal server via the Startup Tool. The Startup Tool accepts the entries that were previously necessary in **zenon6.ini**.

15. Web Server with 64-bit (DEF 30493)

zenon Web Server is now also available as a 64-bit version.

16. zenon Web Client (RQ 4675)

The language setting and the configuration of network encryption for the zenon Web Client have been integrated into the Startup Tool.

As a result, zenon 7.11 no longer includes the zenWebCryptConfig.exe tool.

17. zenon Logic

17.1 IEC60870 Slave

17.1.1 Forward Select before Execute sequence to zenon Logic Runtime (RQ 4633, RQ 4634)

The IEC60870 slave supports, from zenon 7.11, the forward routing of all command levels of the Select before Execute sequence to `ControlObject` variables in zenon Logic.

In the IEC60870S2 profile, a new profile parameter ControlObject has been inserted. For each command variable in the sector with Select-Routing, a ControlObject is to be configured (with the same CAOA, IOA). Based on the ControlObject values, the zenon Logic program must implement a Statemachine for each command variable.

The allocations of the bits of a ControlObject variable are:

- From zenon Logic program to the driver:
  - Bit 0 – Termination
  - Bit 1 – Negative
  - Bit 2 – Positive
- From the driver to the zenon Logic program:
  - Bit 3 – Cancel
  - Bit 4 – Execute
  - Bit 5 – Select
  - Bit 6 – Timeout

The driver configuration has been supplemented with settings for Select-Routing and the configuration of the Select-Timeouts.

17.1.2 Background also for type ID with "time tag" (RQ 4635)

In the IEC60870 slave IO (Information Objects) can also be configured with Type ID with a 'time tag' for Background-scan. Because the IEC60870 standard does not allow time stamps in the Background-scan, the values of Background-scan are sent in ASDU with the corresponding Type ID without 'time tag' (the same as during a general interrogation).

Also applies to Process Gateway IEC870 slave in zenon.

17.1.3 Automatic support for ASDU<104> and <107> (RQ 4635)

From zenon 7.11, the IEC60870 slave supports the test procedures that are executed with ASDU <104> or <107>. No further configuration steps are necessary for this.

This also applies to the Process Gateway IEC870 slave in zenon.

17.2 IEC61850 Client: Connection State (RQ 4668)

A `ConnectionState` variable can be created using the context menu at the server node.

The `TCP` and `MMS` connection status can be displayed via the bits of the variable. This applies for the primary and secondary IP address configured in the driver.

Bits for the primary/secondary connection:

- 1/5 - TCP_CONNECTED
- 2/6 - TCP_CONNECTING
- 3/7 - TCP_CONNECT_FAILED
- 16/24 - MMS_ASSOCIATED (with TCP_CONNECTED)
- 17/25 - MMS_RCB_ENABLE_FAILED (with MMS_ASSOCIATED) -
  the bit is set if it is not possible to activate an RCB (or several RCBs). This setting was configured in the driver configuration - in `RCB assignment`.

Also applies to IEC850 driver in zenon.

17.3 IEC61850 Server: Extensions in GOOSE (RQ 4671)

IN THE GOOSE SUBSCRIBER

An additional variable can be created for each GOOSE Control Block (goCB) of the imported SCL file of the Publisher. The GOOSE Subscriber reacts to the sequence of `TimeAllowedToLive` with a log entry and a value change in the corresponding `ControlObject` variable. Furthermore, errors in the StNum (state number) and SqNum (sequence number) that have been received are checked.

IN THE GOOSE PUBLISHER

In the GOOSE Publisher, the value for `TimeAllowedToLive` has been switched to a dual value of the repeat time `Tn`. In doing so, the minimum value is `10 ms`.

GENERAL

Based on the results of internal research and practical tests, the transmission and receipt thread was shortened to `2 ms`. It is thus possible to accelerate the repeat time to `2 ms` with sufficiently powerful hardware.

18. Programming interface

18.1 Event on execution of a function (REQ 30933)

If a function is executed via the function list, a new **`PreExectureFunction`** is triggered for the **`RTFunctions`** object. This does not apply for reloading.

This new event contains a copy of the function as a parameter. That means Also: The object (**`RTFunction`**) is not in **`RTFunctionsliste`**! However the **`RTFunctions-Collection`** can be determined by the temporary object by means of the **`parent`**. As with all event parameters, the object is only valid within the scope of the event and must not be retained!

18.2 Change to data type in CreateArrayVarEx method (Def. 31804)

In the **`CreateArrayVarEx`** method for the **`variables`** object, the data type for `lAdrMode` has been changed from **`int`** to `zenOn.`**`tpAdrMode`**.

Existing code must be amended accordingly.

UP TO ZENON 7.10:

```
public virtual zenOn.IVariable CreateArrayVarEx(string strName, object lpDriver,
zenOn.tpKanaltypes kTypes, object lpVarType, int lLBound, int lDimension1, int lDimension2,
int Dimension3, int lAdrMode, bool bStartAtNewOffset)
```

FROM ZENON 7.11

`public virtual` zenOn.**`IVariable`** CreateArrayVarEx(**`string`** strName, **`object`** lpDriver, zenOn.**`tpKanaltypes`** kTypes, **`object`** lpVarType, int lLBound, **`int`** lDimension1, **`int`** lDimension2, **`int`** Dimension3, `zenOn.`**`tpAdrMode`** lAdrMode, **`bool`** bStartAtNewOffset)

18.3 Modify variables via API (RQ 30088)

In the zenon object model, the **variable object** has been supplemented with the **ModifyVariable** and **ModifyArrayVariable** functions. Properties of simple variables, structure variables and arrays can therefore be edited via the API. All dynamic properties that cannot be changed via the API have been set to "read only".

- **ModifyVariable** function:
  For simple variables. Allows the modification of:
  - Driver
  - Channel type
  - Data type
  - Addressing mode
  - `Each data type starts with new offset` setting
- **ModifyArrayVariable** function:
  For array variables. Allows the modification of:
  - Drivers
  - Channel type
  - Data type
  - Addressing mode
  - Calculation of offset
  - Lower bound (0 or 1) and dimensions of the array

Attention: In addition, the following properties have been set to READ-ONLY for the API:

- `LBound`
- `Dim1`
- `Dim2`
- `Dim3`
- `OfsAccordingType`
- `IsOffsetManuell`
- `IsStartAtNewOffset`

- `Driver`
- `ID_DataTyp`
- `ID_DriverTyp`

18.4 VBA functions for frame list changed (DEF 30691)

The functions to query the number of frames has been changed. Up to version 7.10 inclusive, all frames of the local project and the global project have been counted together. From version 7.11, only the frames of the local project or the global project are counted.

The following VBA functions have been changed:

- `CSchabliste::vba_Count()`: As of version 7.11, only provides the number of local or global frames.
- `CSchabliste::vba_Item(const VARIANT FAR& vID)`: As of version 7.11, only iterates the global frame list

These changes can lead to incompatibilities with existing projects. If frames are queried in a project using said VBA functions, these must be adapted.

EXAMPLE

There are frames in local project 5 and global project 10. Then:

- Previously 15 frames were counted and iterated
- From version 7.11, either 5 or 10 frames are counted and iterated
- If the iteration goes beyond the respective size, for example 11, this leads to an error
- Separate queries must be created for the local project and the global project

19. Wizards

19.1 Add-on IEC850 Driver Configuration (RQ 4723)

In the **Wizards** area, there is a new add-on available for IEC850 drivers. IEC850 drivers can be created and connections to IEC850 drivers with a SCL file can be configured with this.

Note: zenon Energy Edition must be licensed in order to use this add-on.

19.2 Analyzer Export Wizard for zenon Analyzer 2.10

The Analyzer Export wizard now has extra features.

Main points:

- The linked equipment models of an archive are now saved and updated in the **ARCHIVE EQUIPMENT** table.
- It is also possible to sort variables that have not yet been imported in the **Variables** tab.

19.3 Parameterization Wizard for zenon Analyzer (RQ 4631)

The new Parameterization Wizard helps you prepare a zenon project for the processing of variable information in the zenon Analyzer. Two scenarios are covered:

- Meanings:
  zenon variables often have a very technical name. However this naming is often not meaningful enough for display in a zenon Analyzer report. The variables can be given a unique name for display in the zenon Analyzer report. This name is saved with a special prefix in the resource label of the variable. After import into zenon Analyzer, it is used for reports without the existing variable name needing to be changed.
- Waterfall diagram:
  Some zenon Analyzer reports can display a waterfall diagram using zenon variables. To do this, information on the appearance of the diagram must already be present in the resource label of

the selected variable. The structure and appearance of a waterfall diagram can be defined with a wizard. The waterfall information is saved in the resource label of the variable with a special prefix and is available after import of the metadata in the zenon Analyzer database for the display of reports.

20. Process Gateway

20.1 IEC870 Slave

20.1.1 Forward Select before Execute sequence to zenon Logic Runtime (RQ 4633)

The Process Gateway IEC870 slave supports, from zenon 7.11, the forward routing of all command levels of the Select before Execute sequence to the `Auto/Remote command` in the **`command`**.

To this end, the IEC870 slave was supplemented with, per sector (`COA`) the configuration options for `Select-Routing` and `Select-Timeouts`.

Additions to sector settings also apply for the IEC60870 slave in zenon Logic.

20.1.2 Hysteresis for measured values (RQ 4635)

In the Process Gateway IEC870 slave, the IO (Information Objects) with Type ID <9..14> and <34..36> (measured values) can be given hysteresis.

To do this, the configuration dialog for IOA (Information Object Address) has been revised and supplemented with the properties `Hysteresis Negative` and `Hysteresis Positive`.

20.1.3 Background scan also for type ID with "time tag" (RQ 4635)

In the Process Gateway IEC870 slave, IO (Information Objects) can also be configured with the Type ID with 'time tag' for Background-scan. Because the IEC60870 standard does not allow time stamps in the

Background-scan, the values of Background-scan are sent in ASDU with the corresponding Type ID without 'time tag' (the same as during a general interrogation).

This also applies to the IEC60870 slave in zenon.

20.1.4 Automatic support for ASDU<104> and <107> (RQ 4635)

From zenon 7.11, the IEC870 slave of the Process Gateway supports test procedures that are executed with ASDU <104> or <107>. No additional configuration steps are necessary for this.

This also applies to the IEC60870 slave in zenon.

20.1.5 Configuration dialogs revised (RQ 4633, RQ 4635)

The dialogs for the configuration of the IEC870 slave have been revised for the protocols IEC870-104 and 870-101:

20.2 MODBUS slave supports multi-project administration (RQ 4548)

The MODBUS slave module now also supports multi-project administration when selecting variables. Variables can be selected from the standard project and all sub-projects.

20.3 OPC UA server multi-project compatible (DEF 30037)

The OPC UA server is multi-project compatible from zenon 7.11 onwards. Variable from the Runtime project and all its subprojects can be selected. In doing so, the object name from the variable name and the project name are combined. Configurations for OPC UA clients that were created before zenon 7.11 are thus not compatible. These must be amended when using zenon 7.11.

21. Miscellaneous

21.1 Remote Transport transfers Runtime files to both servers (RQ 4740)

New settings in the dialog for Remote Transport make it possible to transfer Runtime files to both servers (`Server 1` and `Server 2`) in a zenon network. This setting guarantees that the Runtime files are also always updated on the current Primary Server, regardless of whether `Server 1` or `Server 2` currently has this role.

22. Drivers

22.1 3S_V3 (RQ 3778 and 4742)

Version 3 of the 3S ARTI driver has been released as **`3s_v3`**. It allows communication with CoDeSys version 3.0 via TCP/IP and ARTI.

The driver needs the **`PLCHandlerDll.dll`**, which is produced by 3S and contains **`PLCHandler-SDK`**. The DLL is on the zenon installation medium in the subfolder: `AdditionalSoftware\3S PLC Handler`. It must be copied to the installation folder of the driver or to the standard Windows folder.

22.2 Allen Bradley DF1 supports TCP/IP (RQ 4664)

The driver for Allen Bradley DF1 now supports communication via TCP/IP.

22.3 BeckhoffNG (DEF 30639)

The BeckhoffNG driver now supports the reading of block arrays.

22.4 IEC850 Connection State (RQ 4668)

The variables of the new driver object type `Connection state` can be used to display the `TCP` and/or `MMS` connection status. This applies for the primary and secondary address IP address configured in the driver:

- TCP connected
- TCP connecting
- TCP connect failed
- MMS associated (with TCP connected)
- MMS RCB enable failed (with MMS associated) -
  the bit is set if it is not possible to activate an RCB (or several RCBs). This setting was configured in the driver configuration - in `RCB assignment`.

The driver object type `State Info` that was already in the driver was renamed to `Command Info`. In existing projects, the new name is used once the driver configuration is saved in the editor for the first time.

This also applies to the IEC60850 client in zenon.

22.5 FRAPORT (29160)

Redundancy can be turned off with the FRAPORT driver, by leaving the entry for the **`LAN B`** address empty.

22.6 HOFBUS (DEF 29341)

The HOFBUS driver has been created. It is for communication with PCR-1 process controllers using the HOFBUS protocol.

22.7 KUKA Control (RQ 4641)

For KUKA HMIs, there is an ActiveX control (zenRuntimeCtrl.ocx), which executes the complete zenon Runtime as a control and acts like a zenon Web Client. This allows zenon Runtime to be inserted into other applications as a subprogram.

Differences:

- Use on the server and standalone is possible.
- Only a license for zenon Runtime is necessary.
- The start project is read form zenon6.ini.
- Network communication is via zenNetSrv.exe instead of zenNetSrv.dll.

The control is only functional within a normal zenon Runtime installation.

22.8 MELSECA supports redundancy (DEF 29264)

The MELSECA driver now supports redundancy via a secondary IP address.

22.9 Modbus Energy ICE NPx800 (DEF 29672 und 29163)

The Modbus Energy ICE NPx800 driver now supports the evaluation of events via A/D bits. In addition, it checks to see if the EV flag is set when querying events.

22.10 Modbus RTU (DEF 30593)

The new `byte aligned coil` driver object type is available for the driver.

22.11 OPC2Cli32 (DEF 29577)

In the driver configuration, it is possible to select whether the variable name, variable ID or symbolic address is used for communication.

22.12 OPCUA32 Client (DEF 29623 and 30034)

The OPCUA client can, in addition to logging in the variables, also send a read request (`Read initial values on startup`). Furthermore, it is possible to determine by means of the property (`Request array variables on index basis`) whether each array element is signed in as its own variable or whether the complete array is signed in for value changes.

The OPCUA client supports the mapping of the MAN and ZERO status to the zenon INVALID status.

22.13 Steriflow (DEF 328)

The Steriflow driver now supports `length fields` for `3 byte` and `4 byte`. These are selected in the **`Options`** tab of the driver configuration.

22.14 SYSDRV evaluation results in the redundant zenon network (RQ 4671)

The system driver in the **`network`** group has been supplemented with two further variables:

- `Result of evaluation, Server 1`
- `Result of evaluation, Server 2`

In the `evaluated redundancy mode`, the variables provide information on the current value of the evaluation on the respective server. The value is `0` in all other modes.

The names of the existing SYSDRV variables have been amended to the `Server 1`/`Server 2` properties of the project in the zenon network.

23. Important information

23.1 Integration of VBA wizards and VSTA wizards

All VBA wizards are saved in the file "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.

23.2 Overwriting Runtime files

When creating Runtime files in the 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: "**RT 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!

23.3 Converting existing data

If a project is started in Runtime version 7.x for the first time, the Runtime files of the concerned modules are converted. This guarantees that data changed in online operation is not lost. To do this, please read about conversion of projects in the General chapter.

Attention: All files have to be created in the Editor for the new version; otherwise the project cannot be started!

23.4 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.

23.5 Process Desk – killing tasks

The Process Desk of zenon now allows you to kill tasks that got stuck.

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.

23.6 Page preview and printing in the Report Generator

In order to use the page preview and the printing of the Report Generator, a printer must be configured.

23.7 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`.

23.8 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.

23.9 Complex vector graphics

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

23.10 zenon in the Startup folder with dongle licensing

If zenon is started from the Startup folder, it may happen that it starts before the Wibu Key or Codemeter driver. Consequently, no dongle will be found and zenon will start in demo mode.

You can change this behavior by configuring a delayed start of the Runtime. For this, you need to make the following entry in the **zenon6.ini** file:

```
[DEFAULT]

STARTDELAY=[delay of the Runtime start in ms]
```

23.11 Wibu Key error message „WK1128"

If you get the error message **WK1128** when starting the Editor or Runtime, an obsolete version of Wibu Key is being run. Install the current version of the Wibu Key software from the installation medium.

23.12 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 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
- Web Server (zenWEBsrv.exe)
- zenon Logic Workbench
- zenon Logic Runtime

23.13 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.

23.14 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`**.

23.15 Erroneous line display if extended graphics mode deactivated

In the extended graphics mode, dashed lines with a line width >1 can be drawn. If you deactivate the extended graphics mode and zoom onto the line, the line will be displayed as solid.

23.16 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 functionRead from zenDB.ini, the values are stored wrongly in the Startup Tool. You must check existing entries and change them if necessary.

23.17 String arrays with straton32 driver

Several string arrays with the same sice can be read out correctly with the **straton32** driver only as of version 6.22 SP1 and zenon Logic Workbench SR7-3. If projects of older versions are converted, the string length must be changed for every string array in order for the communication to work.

23.18 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.