

zenon for production- related operation

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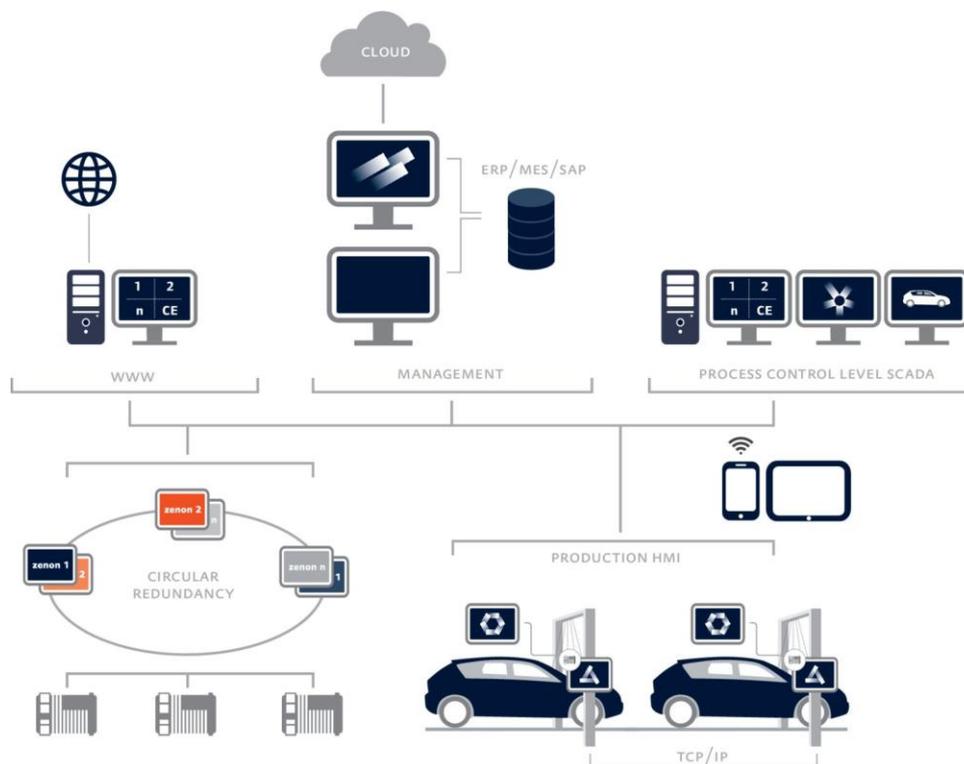
zenon
do it your way

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1. zenon as a consistent software system

Different information systems or visualization systems are frequently used in automotive production. Various systems are often used when operating on site (also called human-machine interface or HMI), at SCADA or control-system level, or in the central equipment control system and monitoring. Different planning departments, various equipment suppliers, as well as different, historically-grown structures can be possible reasons for heterogeneous production landscapes. However, if you consider the content of a screen in detail, there are many commonalities with the data. The production controls generally serve as data sources. However, alarms and data to be archived are usually logged and recorded several times. In order to minimize this duplicated work, it is advantageous to use a comprehensive software system such as zenon. zenon allows platform-independent use of control data and variables. An automatic comparison of all alarms and messages is carried out on the different systems, resulting in greater support for the operator for optimal production.



With zenon, COPA-DATA offers different solutions for each respective application:

- ▶ One, depending on the application, autonomous or integrated PLC system with IEC 61131-3 programming environment (zenon Logic).
- ▶ Ergonomic and user friendly machine operation (zenon Operator).
- ▶ Comprehensive visualizations and control of complex equipment with excellent connectivity (zenon Supervisor).
- ▶ Platform-independent reporting, which processes and presents data from the process to the ERP in real time (zenon Analyzer).

However you may use zenon and whichever variants you wish to combine, your projects are easily scalable. If your projects develop and grow, licenses can be easily extended. Projects and data are retained, the new scope of functionality is available immediately – adaptations to your projects are not necessary.

As a result of the use of a comprehensive software solution, you have many advantages, some of which will be explained in greater detail in this document.

2. Engineering

zenon Operator ensures that machine-oriented operation is highly user-friendly and ergonomic. This already starts at the project creation stage. The zenon Editor development tool is characterized by a high degree of user-friendliness. zenon Editor has various functions and possibilities to support the project engineer when creating the user interface.

As a result of the zenon philosophy of “setting parameters instead of programming”, users quickly create suitable operating projects with a small amount of training. In doing so, all templates and data for subsequent control system projects can be prepared, or pre-existing ones can be applied.

When configuring projects with zenon, there is a cost saving in many places:

- ▶ Training applications and attendant costs are easily borne, because the know-how gained is also used for control room projects.

- ▶ When carrying out subsequent maintenance activities in the projects, the same development tool, zenon Editor, is used. Existing knowledge is beneficial here too. At the same time, the use of many different software tools is reduced.
- ▶ The zenon Editor, with its forward and backward compatibility, offers optimum support for the use of different versions on different target hardware. This is how heterogeneous and historically-grown production landscapes can be networked.
- ▶ The automatic amendment of resolution in zenon allows the use of projects on different target hardware. As a result, replacing panels, if necessary, is considerably less work.

3. Panel hardware

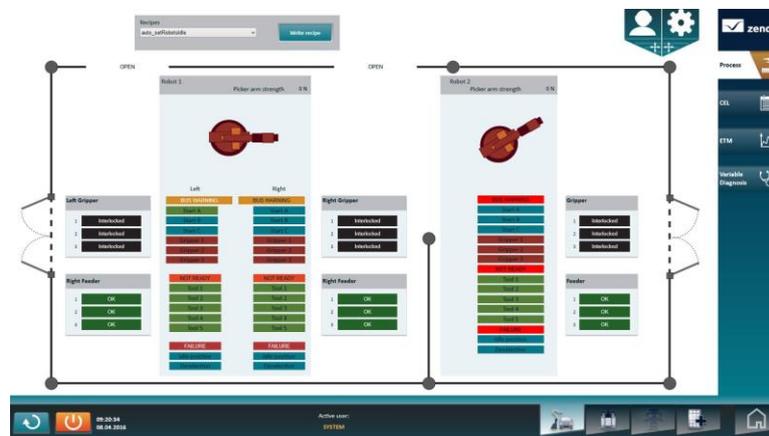
zenon is independent from the hardware used and supports all current Windows operating systems, including CE and embedded versions. Regardless of the platform selected, all projects are created with zenon Editor

As a result, you get the maximum freedom when selecting hardware. Decommissioning a panel or switching to a different supplier does not constitute a problem; zenon projects continue to be used directly.

There is thus an additional saving in storage, because the panels from different manufacturers can be combined as desired. Free selection of the panels to be used also allows competition among hardware suppliers, which also has a positive effect on the price.

4. Standardization and consistent design

The zenon Editor offers many possibilities for a consistent standardization of user interfaces. Such a standardization pays off, in particular if many projects with similar content need to be created for different equipment. Here, you support the many well-developed functions of the zenon Editor, which allow reuse of parts of projects and templates.



The use of templates saves a considerable amount of project configuration time and thus costs. The use of standardized elements is applied throughout all parts of the project, which also includes language switching, units of measurement or color layouts, for example.

Individual project objects are stored in central libraries and used many times over different projects. Standardization, and thus the reuse of zenon objects, can also be further optimized with the use of zenon wizards. Parts of projects or complete projects are thus automatically created quickly and without errors on the basis of equipment data.

The styles in zenon ensure that the design remains consistent in one project (or also throughout a project). Styles in zenon combine graphic properties of screen elements. This means that graphic parameters of elements such as line widths, size, color, etc. are pre-defined for the required elements in a project. The styles are managed centrally. These saved styles can then be easily transferred to all other elements. If there is a change to the elements, the amendments are carried out in the global project; the linked elements change automatically too.

5. Summary

The comprehensive zenon software system supports you optimally with your tasks. The independence of the programmable logic controller used, but also the panel used, allows freedom and flexibility when selecting systems. As a result, you save costs when configuring a project, but also during storage and in purchasing the respective components. Due to the consistent integration of zenon as an HMI into your automation landscape, you can improve your long-term effectiveness and reduce costs on a lasting basis.



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