

Project creation – quickly, intuitively and efficiently

Ergonomics in engineering [2/5]

Ergonomic engineering with zenon also means that complex functionalities are available “out of the box”. Without programming, just by setting parameters, you can create complex applications per mouse click. The central, object-oriented approach in zenon and the diverse possibilities to automate tasks, make you even quicker in project generation.



EFFICIENT ENGINEERING

zenon supports quick, intuitive and efficient engineering. At the core is the principle, “set parameters instead of programming”. That means - complex demands can also be configured easily per mouse click - without having to write a line of code.

NETWORK TECHNOLOGY - OUT OF THE BOX

All zenon network functions are parameterized by mouse click. Thus, even complex infrastructures can be quickly created and stable operations are guaranteed.

- ▶ Interruption-free redundancy at the click of a mouse
- ▶ Rated redundancy
- ▶ Circular redundancy in the network
- ▶ 128 bit encryption and client authentication in the network (AES-192)
- ▶ IPv6 support in the core system
- ▶ Remote administration for remote project configuration and remote maintenance
- ▶ Automatic distribution of project changes in the network

FAST FACTS

- ▶ Time-saving project configuration by means of an intuitive graphical user interface
- ▶ A system with layers of visualization for a clear overview, even in complex equipment screens
- ▶ Strong object-orientation
- ▶ Individual templates for process images
- ▶ Freely changeable assistants to support for repeated tasks and for the creation of new projects.

CONFIGURE PROJECTS CENTRALLY

Many properties and attributes can be defined in zenon at a central point and are then available everywhere in the project. For example fonts, frames, data type, limits and much more.

CONFIGURE PROJECTS AUTOMATICALLY

For automatic project configuration, the zenon Engineering Studio has a comprehensive programming interface. This means that repeated tasks, in particular, can be completed very rapidly. The development environment integrated into zenon is helpful when creating scripts. In addition to saving time, this solution has another particularly important advantage: protection against error. A script that is free of error provides results that are free of error. These scripts can then be used at anytime – and in all projects. An application example is the automatic creation of variable lists.

OBJECT-ORIENTED ENGINEERING

Object-orientation, global projects and sophisticated import and export interfaces allow the efficient re-use of individual elements and complete projects. Projects and parts of projects can be easily and safely distributed via the XML interface. When exporting screens as XML files, all variables, drivers, elements, templates etc. are also exported. This data can be selectively or fully imported into another project.

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The language can be switched	zenon Engineering Studio can be switched between eight languages – German, English, Italian, Spanish, French, Czech, Russian and traditional Chinese.
Save individually adaptable user interfaces via profiles	Profiles save the monitor allocation of individual views, which can then be called up at any time at the press of a button. As a result, the user is only offered the functions that they require and works with optimized screen allocation or in full screen mode if required.
Project-wide configuration	<ul style="list-style-type: none"> ▶ Edit various projects in one zenon workspace ▶ Edit an entire network topology in one workspace ▶ Projects can be split logically; so several projects can run in a Service Engine ▶ A project can also access the variables and functions of another active project – in engineering and in the Service Engine
Acceptance of variables from external systems	<p>Import interface for variables from</p> <ul style="list-style-type: none"> ▶ Siemens SIMATIC Step7® and SIMATIC PCS7® projects, ▶ Beckhoff-TwinCAT® control, ▶ Allen Bradley ControlLogix® control, ▶ OPC/OPC UA Servers. <p>For systems without a direct interface, we recommend the route via dBase, an XML file or a .NET script for importing variables.</p>
Distributed engineering	Several people can work on a project together at the same time. Either in a local network or via remote access.
Resolution independent engineering	Yes
Programming interfaces	C#, .NET and VBA
Internal variables	<ul style="list-style-type: none"> ▶ Local or global ▶ Freely selectable whether remanent (available after a system restart) or available once the variable has been initialized
Mathematics driver	Integrated zenon PLC Workbench.
Wizards	Wizards provide an example for the practical use of .NET or C# in the zenon Engineering Studio. The supplied wizards help the user to complete many project configuration tasks. The project wizard, for example, helps when creating basic projects. The language table wizard detects all texts in a project where the language can be switched and inserts it into the language table. The documentation wizard automatically creates fully-fledged project documentation. Many other assistants help to convert, optimize or create projects. The complete source code of supplied wizards is available and can be modified as desired. If necessary, new wizards can be created at any time.
Conversion wizards	zenon provides conversion wizards with which projects from third party systems, such as WinCC or FactoryLink, can be converted in zenon projects.