EVERYTHING UNDER CONTROL.

THE INDUSTRY 4.0 PLATFORM FOR INDUSTRIAL AUTOMATION.

CODESYS AUTOMATION SERVER

FUNCTIONALITY OF THE CODESYS AUTOMATION SERVER AT LAUNCH

- Perfect overview of your own control landscape including information on topology, status, network addresses, current project, boot application, and application parameters

PLANNED FUNCTIONALITY OF THE CODESYS AUTOMATION SERVER

- Continuous Integration processes with build server to create the boot application, static code analysis to avoid potential application errors, profiling for runtime analysis of the PLC program, unit tests for function testing
- Central tool data storage with repositories for devices, libraries etc., as well as installations of the CODESYS Development System
- Implementation of individual, specific services on an online server platform using a practice-oriented framework for the CODESYS Automation Server, open platform for customized apps and functions
- Easy logging and analysis of process data and events as a lean complement or alternative to public cloud systems
EVERYTHING UNDER CONTROL.

The CODESYS Automation Server – the Industry 4.0 platform for industrial automation.

The CODESYS Automation Server uses web technologies to simplify typical tasks of automation engineers that are very difficult to realize today. The system enables the convenient administration and commanding of controllers and the installed software in the browser of a PC, tablet or smartphone. A ticket system allows for assignments to be forwarded in a targeted and secure manner.

The CODESYS Automation Server is operated on Amazon Web Services (AWS). Access to a customized account can be purchased in the CODESYS Store. If required, installation is possible on private, company-internal cloud systems. In both cases, the requirements of IT security are fully satisfied so that production and control data, source code and other sensitive information are protected at all times.

Functionality of the CODESYS Automation Server at launch

**Perfect overview of your own control landscape**
including information on topology, status, network addresses, current project, boot application, and application parameters

**Control-specific functions**
such as automatic backup/restore of the application software, certificate management, firmware update, user management, rollout of application changes

Planned functionality of the CODESYS Automation Server

**Continuous Integration processes**
with build server to create the boot application, static code analysis to avoid potential application errors, profiling for runtime analysis of the PLC program, unit tests for function testing

**Central tool data storage**
with repositories for devices, libraries etc., as well as installations of the CODESYS Development System

**Implementation of individual, specific services on an online server platform**
using a practice-oriented framework for the CODESYS Automation Server, open platform for customized apps and functions

**Easy logging and analysis of process data and events**
as a lean complement or alternative to public cloud systems

AUTOMATION-SERVER.COM
A digital counterpart to any device in an industrial environment is essential for efficient value creation. The CODESYS Automation Server adds such a digital counterpart to any real existing controller in the cloud and provides full access to it.

**Benefits of the Digital Twin**

- Central and easy management of all devices instead of management via external lists
- Clear and up-to-date display of diagnostic information for all managed devices
- Easy and time-saving rollout of identical applications on multiple devices
- Immediate visibility of project assignments to devices instead of externally managed assignment tables
- Online access to all important device data and functions, such as parameters/parameter sets, status information, firmware status, application software on the device (boot applications), location, users and their access rights

**Everything at a glance**

Thanks to the Digital Twin, plant operators, application engineers, and service technicians always have a complete overview of the control landscape that is precisely customized to their needs.

In contrast to commercial routers – it not only displays IP addresses but also the current software status of each device, the current application, and the application parameter sets connected to the devices. This allows you to detect immediately which controller needs a software update, whether a machine is in error-free operation, or which parameters can be used to optimize an application.
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INTELLIGENT DEVICE EXCHANGE:
OPTIMUM SUPPORT IN EMERGENCIES

Even if you have a replacement device at your disposal, many questions remain unanswered:
Which version of the application software was installed before the failure? Where is the particular project stored? Which version of the development software was used to create the application? Is there a suitable boot application? Where exactly is the affected controller located? Is there a backup of important data?
The CODESYS Automation Server knows all the answers and thus enables you to exchange and commission in the shortest possible time.

The CODESYS Automation Server

• matches device identifications regarding location and ID
• automatically determines the correct boot application
• installs the boot application including all parameters and user access rights automatically on the device
• saves the backup data in the cloud – the central, „natural“ storage location
• thus realizes a simple, automatable restore process
• uses the Ticket System for uncomplicated processing
• provides for the production process to restart within seconds instead of hours

Automatic backup

The CODESYS Automation Server automatically and regularly creates data backups of the controllers, including backups of applications and device parameters. Thus, the automation engineer is perfectly prepared in the event of a control failure.

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The CODESYS Automation Server also provides an efficient solution for the worst case scenario of every production line: an unexpected device failure.

The application engineer is too expensive for daily maintenance tasks on the controller. No matter whether a new controller is to be put into operation, a defective one replaced or a PLC updated with a new application – the service technician can easily perform such tasks. This is all made possible by the ticket system of the CODESYS Automation Server.

THE TICKET SYSTEM: EFFICIENT AND SECURE PROCESSING OF ASSIGNMENTS

The application engineer

- creates a new or updated application software and loads it into the CODESYS Automation Server as a boot application.
- creates an assignment in the CODESYS Automation Server, e.g. „Download the updated boot application to controller XYZ“.
- produces a ticket for the assignment, identifiable by QR code
- hands over the ticket with QR code to the service technician, e.g. by e-mail

The CODESYS Automation Server

- manages assignments and tickets
- logs the assignment processing
- gives an immediate overview of the status and result of the assignment

Assignments for controllers can definitely not be completed more effectively.

The service technician

- does not need any knowledge of CODESYS or the CODESYS Automation Server
- does not require personalized access to the CODESYS Automation Server
- scans the QR-code of the ticket and receives the assignment
- executes the application engineer's assignment at a convenient time via web interface on the machine/plant, e.g. during a service break
- gets limited access to the CODESYS Automation Server only for this job due to the ticket – without further operating options

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CODESYS – the manufacturer-independent
IEC 61131-3 automation software.

CODESYS Product Families:

+ Engineering + RunTime + Automation Server
+ Visualization + Fieldbus + Communication
+ Motion + CNC + Safety + Services

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restrictions, please contact sales@codesys.com.