

# CONTROLBUILD™

A global software platform designed to develop and validate embedded control systems

## Why choose ControlBuild?

- Do you experience project delays and increasing overhead?
- Are you facing the ever increasing competition in your industry and looking for a global solution to reduce cost, improve quality and increase efficiency in the short and long term?
- Do you want to verify and validate your design before physical implementation?
- Are you looking for a global design tool starting from functional design before mapping to the hardware architecture?

If your answer to one or more of the above questions is "Yes", ControlBuild is the right solution for you.



## Industrial Challenges

- Fierce competition from both domestic and international markets
- Project delay and increasing overhead
- No global tools for industrial control

## Solution

ControlBuild is the first comprehensive solution dedicated to embedded electronic engineers. ControlBuild covers different stages of embedded electronic equipment development for industrial systems (system design, hardware allocation, automatic code generation, integration tests, and training).

Without ControlBuild, different tools are required at each development stage. ControlBuild is the first product covering the "Needs & Requirements" through to "Production & Update".

ControlBuild enables the transition from one development stage to the next, without having to recapture data.





## Benefits

ControlBuild offers a global software platform to manage the whole system design (for train, ship, plant, etc.) design. ControlBuild offers tools to validate all design steps from the very early stage, and with progressive integration.

ControlBuild Embedded is designed:

- for the embedded electronic equipment designers who are not computer programming experts
- to reduce complexity and cost
- to improve quality of embedded electronic equipment design
- to support Functional Design, IEC 61131-3 and EN 50128
- to enable re-use Virtual Automation Device

## Key Features

ControlBuild is a Model-Based Systems Engineering (MBSE) tool with a large quantity of modules and functionalities. Each module is dedicated to specific tasks. Each module is well linked and perfectly homogenous. ControlBuild supports project management, applications, libraries and multiple users access rights. Its editors enable the description of components, functions and equipments using the IEC 61131-3 languages (SFC, LD, FBD & ST) and Electrical Schematic type languages. ControlBuild makes possible the simulation of control functions (PLC execution) and hardware configuration (Factory Environment):

- A well structured set of libraries is available, making it easy for programmers in terms of program structure and saving time (Tool-boxes, Filters, Equipments with Electro-mechanical behaviour,...).
- A documentation generator with customization (logo, document models,...) is provided in order to produce different levels of documentation for each project.
- Synoptic, Alarm Manager, Scenarios and Historic Event Editors provide the ability for MMI definition or prototyping, graphical views, consoles, tests scripts and diagnostics functions. ControlBuild enables hardware configuration customization, application distribution on several targets, assignment to physical I/Os, serial links and fielding networks of the hardware architecture. It then generates the code for dedicated targets. Targeted application monitoring is also available with online communication and download modules. I/O (National Instruments, Advantech,...), serial links (standard like Modbus or specific: HPTS,...) and Networks or Fieldbus cards (Applicom, Hirshman, Hilscher, Beckhoff for MVB, CAN, World FIP, TCP/IP, OPC,...) communication modules are available to connect ControlBuild HIL Test Benches to targets for integration tests and qualification.

## Applications

Railway Transportation- Automotive - Food & Beverage - Intelligent Building - Iron & Steel - Logistics Systems -Power Energy - Shipbuilding - Aerospace & Defense - Water Treatment - Life Science - Oil & Gaz



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