

Studio 5000 Automation Engineering & Design Environment®

Enhance Productivity through Simplified System Development

Overview

The Studio 5000® environment combines elements of design into one standard framework that optimizes productivity and reduces time to commission.

This intuitive integrated design environment focuses on rapid design, re-use, collaboration and virtual design.







The updated user interface provides a common, modern user experience across all Studio 5000 applications.

With the Studio 5000 Applications you can:

- Build and maintain a system layout in a central place with **Architect™**
- Configure, program and maintain your Logix 5000™ family of controllers with **Logix Designer®**
- Create intuitive, modern screens for the PanelView™ 5000 graphic terminals with **View Designer™**
- Create and leverage re-usable libraries of content for rapid project development with **Application Code Manager**
- Simulate your control system in a safe, virtual environment while reducing project cost and risk with **Logix Emulate™**
- Link Rockwell controllers to various simulation and modeling tools for virtual commissioning, model based design, and self-configuring machines with **Simulation Interface**

Rockwell Software

Studio 5000

Architect		Enables Simplified System Design and Data Exchange
Logix Designer		Collaborative System Programming and Configuration
View Designer		Highly Integrated HMI with Logix
Application Code Manager		System Reuse and Quickly Build Projects
Logix Emulate		Virtual Design and Operator Training Systems
Simulation Interface		Connect Logic to Simulation Models

**Rockwell
Automation**

Studio 5000 Architect

Studio 5000 Architect is the central point within the Studio 5000 environment where users can view the overall automation system; configure devices such as controllers, Human Machine Interface (HMI) and Electronic Operator Interface (EOI); and manage the communications between the devices. The Studio 5000 Architect application also exchanges data with other Studio 5000 applications and third-party CAD packages to simplify the development experience.

This helps streamline the time to build your Logix and View automation system and allows you to:

- Create a graphical representation of your system for easier system modifications
- Build Logix and View projects from an integrated environment
- Re-use Logix and View content as well as use content from the Rockwell Automation Library of Process Objects
- Exchange hardware configuration data, like Controller, I/O, and Communications modules, with third-party tools
- AutomationML import/export capabilities for bi-directional exchange of data between Studio 5000 and electrical CAD packages for robust data management

Manage the System Layout



Studio 5000 Logix Designer

Studio 5000 Logix Designer is the one application to configure, program and maintain the entire Allen-Bradley® Logix 5000™ family of controller products and related devices. Its intuitive, modern programming environment allows users to work collaboratively to design and maintain their systems.

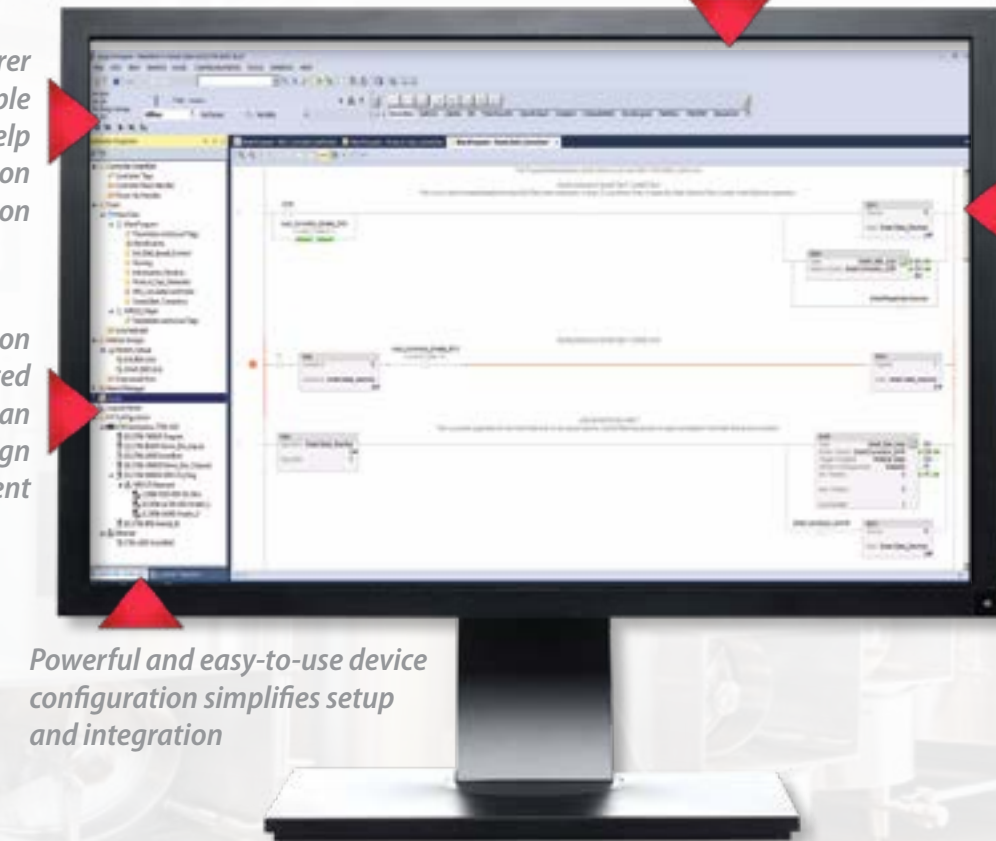
- One programming software for all disciplines – safety, motion, drives, process and discrete
- Easily configure devices with graphical wizards and automatically create tags
- Simplified, modern programming with multiple editors and modular programming features for increased productivity
- View the system and easily find what you need with the Logical Organizer and Controller Organizer views – helping maintain uptime
- Create code simultaneously with others, and then compare and merge changes
- Protect the design and execution of your Logix content with license-based protection capabilities – to help ensure that only authorized users are able to view, modify or execute protected code
- Logix tag-based alarms functionality allows users to add alarms directly to any tag or structure with a simple right click; no additional programming required
- Expanded library of safety instructions for network-based safety and motion instructions for improved kinematics support
- Supports scalable safety offerings providing a more right-sized solution SIL 2 and SIL 3
- Offers AutomationML capabilities for bidirectional exchange of data between Studio 5000 Design Environment and electrical CAD packages for robust data exchange and flexibility

Configure, Program and Maintain Your Controllers

Instruction Palette contains over 250 predefined instructions

Project Explorer offers multiple views to help define organization and execution

Integrated Motion and Integrated Safety in an intuitive design environment



Feature-rich editors help users write modular code

Powerful and easy-to-use device configuration simplifies setup and integration

Studio 5000 View Designer

Studio 5000 View Designer is the design environment for the PanelView™ 5000 family of operator terminals. The integration of the PanelView 5000 terminals with Studio 5000 View Designer helps build modern applications more easily and improve operator performance.

The View Designer application provides an intuitive, modern design environment and enhances integration between the control system and operator interface to improve programming efficiency and runtime performance.

- Preconfigured banner, alarm summary and diagnostic displays help reduce design time
- Simplify your engineering with shared tags between HMI and controller
- Eliminate alarm programming and reduce network traffic with Logix-tag based alarms
- High-speed button control provides quick response and feedback for machine jogging applications
- Create custom, re-usable add-on graphics to more efficiently build your applications
- Multi-language support with a language switching feature enables users to switch between languages on the PanelView 5000 terminals to support global user needs
- Emulation capabilities enable users to test run a project to decrease overall project risks
- Data logging and historical trending features show historical data immediately when the screen is displayed, helping decrease troubleshooting time
- Built-in VNC server enables a remote VNC client for monitoring and troubleshooting

Configure, Program and Maintain Your Operator Interfaces



Studio 5000 Application Code Manager

Studio 5000 Application Code Manager helps speed system development by building libraries of re-usable code that can be managed and deployed across the entire enterprise. Creating projects with Application Code Manager helps improve design consistency, reduce engineering costs and achieve faster commissioning.

- Easily create and configure objects in bulk using re-usable libraries of code to increase application development, without any additional programming
- The auto content generation feature creates not only the controller code for the modular object, but also the associated visualization, historical and alarming data – helping to build projects more efficiently
- Easily instantiate complex re-usable library objects into a new or an existing project
- Use standardized, application-focused libraries of code at no cost, including PlantPAX® Process Object Libraries and our Machine Builder Libraries, to save time and more easily maintain your systems

A no-cost Lite Edition is available from **PCDC** (Product Compatibility and Download Center) and includes the ability to use Rockwell Automation libraries and create custom libraries, but is limited to a single controller and local database. Studio 5000 Application Code Manager Standard Edition is available as a low cost, annual subscription.

Accelerate Project Creation Using Re-usable Content

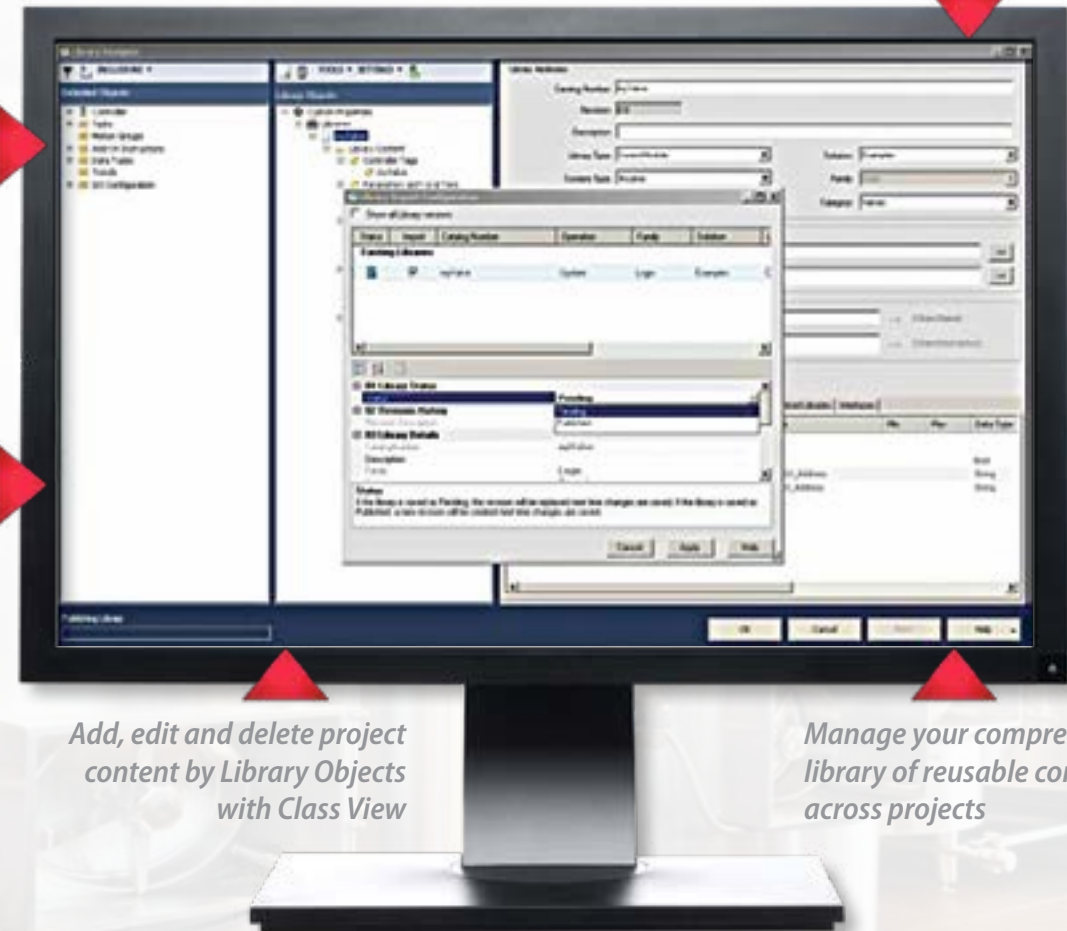
Easily import and export configuration data using Microsoft Excel

Project Explorer shows all of the configured objects in your automation project

Add, edit and delete project content by Library Objects with Class View

Quickly and easily configure modular objects through simple parameter configuration

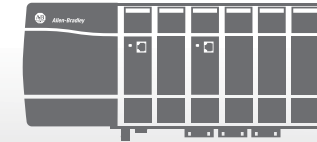
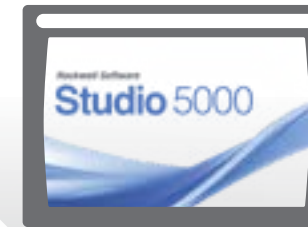
Manage your comprehensive library of reusable content across projects



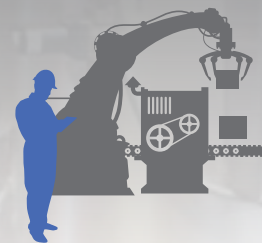
Studio 5000 Logix Emulate

Studio 5000 Logix Emulate increases design productivity, reduces risk and decreases overall project costs. It is the core of Studio 5000 virtual design; enabling Machine Prototyping, Throughput Analysis, Virtual Commissioning and Operator Training Systems (OTS). Logix Emulate provides the ability to validate, test and optimize application code independent of physical hardware. Interface capabilities provide connectivity to 3rd party simulation and OTS, enabling users to simulate their entire process and train teams in a safe, virtual environment.

- Simulate discrete Input/Output (I/O) and Logix5000 based controllers
- Simplify troubleshooting by utilizing advanced debugging to support code validation and virtual commissioning
- Easily adjust execution speeds to identify potential issues long before they are found in a production system
- Integrate into high fidelity process simulation systems for operator and situational based training



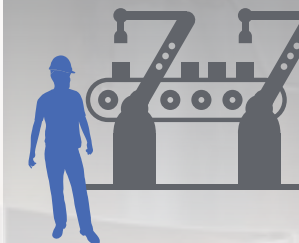
**MACHINE
PROTOTYPING**



**THROUGHPUT
ANALYSIS**



**VIRTUAL
COMMISSIONING**



**OPERATOR TRAINING
SYSTEMS (OTS)**



Simulate Your System in a Safe, Virtual Environment

Studio 5000 Simulation Interface

- Studio 5000 Simulation Interface connects controllers – physical or emulated – to simulation and modeling tools to enable virtual commissioning and model-based design. This can help you design, test, validate and commission smart machines before they are put into service.
- Uses Functional Mock-up, a tool-independent standard, to support both model exchange and co-simulation of dynamic models to design and test smart machines easier
- Supports Matlab Simulink, allowing bi-directional communication with Simulink Models
- Simulate discrete Input/Output (I/O) and Logix5000 based controllers
- Simplify troubleshooting by utilizing advanced debugging to support code validation and virtual commissioning
- Easily adjust execution speeds to identify potential issues long before they are found in a production system
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Simulation Interface



Connectivity to support smart machines and digital design

Studio 5000 Software Package Options

 Included
  By Subscription
  Add-on Purchase
  Not Included

Studio 5000 Edition	Toolkits	Professional	Full	Standard w/ Networx	Standard	Lite	Mini	Service
Architect		 			 			
Logix Designer		 			 			
View Designer		 			 			
Logix Emulate*		 						
Application Code Manager Standard Edition**								
Simulation Interface***		 						

* Logix Emulate is included in the Professional Edition and Toolkits. Logix Emulate for Operator Training is a standalone license and must be purchased separately.

** ACM Lite Edition available at no charge on PCDC.

*** Simulation Interface development version included in Professional Edition only. Run Time version must be purchased separately.






 Connect with us.

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Publication 9324-PP006K-EN-P – December 2018
Supersedes Publication 9324-PP006J-EN-P – January 2018

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