RSLogix™ 5000 Design and Configuration Software

What’s New in Version 20

Version 20 Enhancements

The latest release of RSLogix™ 5000 software delivers the high performance of an integrated control system for machine builders, system integrators and end users looking for a single control infrastructure with a single development environment that easily scales to match application requirements:

Expanded Scalability (pg. 2)
Support for a broader range of controllers, I/O and drives provides best-fit alternatives for a wider variety of applications.

Broader Device Integration (pg. 3)
Reduce downtime, improve speed of development, and more easily and quickly connect and configure a greater selection of devices.

Enhanced Safety Features (pg. 2)
New safety components and programming features extend the performance of the 5570 family of controllers into safety-related applications.

Integrated Motion on EtherNet/IP (pg. 3)
Advanced motion functions for a broader spectrum of applications.

As one of the core technologies of Integrated Architecture™, Logix offers a unique approach to automation — a single control platform with a common control engine and development environment expressly designed to deliver world-class capabilities for any automation discipline.

At the heart of Logix technology is RSLogix 5000 design and configuration software. Whether you have discrete, process, batch, motion, safety, or drive-base applications, RSLogix 5000 offers an easy-to-use, IEC61131-3 compliant interface, symbolic programming with structures and arrays and a comprehensive instruction set that serves many types of applications. It provides ladder logic, structured text, function block diagram and sequential function chart editors for program development as well as support for the S88 equipment phase state model for batch and machine control applications.

With RSLogix 5000 you can
- use one intuitive design and configuration software package
- simplify development of complex control solutions
- have greater access to real-time information
- develop localized applications in a single control platform

and achieve:
- optimized productivity and the ability to react quickly to market and business needs
- faster startups with reduced commissioning time
- reduced maintenance and training costs
- lower total cost of ownership

Reduce time to market and total cost of ownership with RSLogix 5000
Expanded Scalability

Using RSLogix 5000 v20 in combination with scalable, right-sized control system components allows machine builders and end users virtually unlimited scalability using a single control platform and common user experience.

RSLogix 5000 v20 provides a single development environment for the CompactLogix™ 5370 programmable automation controllers (PACs), ControlLogix® and GuardLogix® 5570 PACs, Kinetix® 350 servo drive on EtherNet/IP™, and 1734 POINT Guard I/O™ analog input module. This wider variety of options provides best-fit alternatives for specific application requirements, and significantly lowers the cost to deploy integrated motion on EtherNet/IP in a greater range of machine applications.

RSLogix 5000 v20 offers support for the following new hardware:

**CompactLogix 5370 PACs**

Expanding on the scalability of the Logix family of controllers, the CompactLogix 5370 programmable automation controllers (PAC) are designed to meet the growing need for a higher performance controller in a space-saving form factor.

- 1769-L3 (6 new controllers)
- 1769-L2 (3 new controllers)
- 1769-L1 (3 new controllers)

**ControlLogix 5570 PACs**

The performance of the 5570 controllers has now been extended for use in safety applications and hazardous environments. With the addition of the L71 controller, users can gain the benefit of the 5570 control engine at a more cost-effective price point.

- 1756-L71
- 1756-L73XT (extreme environment controller)
- 1756-L72S (GuardLogix)
- 1756-L73S (GuardLogix)

**Higher Performance I/O (early 2012 release)**

Peer-to-Peer I/O control provides significant increase in machine performance, independent of the controller. Hardware supporting this capability includes:

- 1756-OB16IF Fast 24vdc Isolated Output Module
- 1756-IB16IF Fast 24vdc Isolated Input Module
- 1756-IB16IFC 24vdc Prox Switch Counter Module

**Kinetix 350**

This single axis servo drive is designed to connect and operate with the CompactLogix 5370 controllers supporting Integrated Motion on EtherNet/IP™. Combined as a system, they can provide a scalable motion solution at a lower acquisition cost and delivers the performance needed for applications from simple stand-alone machines to complex, multi-axis motion control systems.

Enhanced Safety Features

RSLogix 5000 v20 adds support for new GuardLogix 5572S and 5573S Safety Controllers to extend the performance of the 5570 family of controllers into safety-related applications. Like the standard 5572 and 5573 controllers, the safety versions of these controllers can achieve twice the scan time performance. The introduction of the 1734 Point Guard I/O analog input module provides SIL3 rated analog input for POINT I/O, and is supported by two new TUV certified analog input instructions. This new module and associated instructions will allow users to extend the use of GuardLogix into process safety applications such as burner management systems, thermal forming applications and other fail safe process applications. Additional instructions such as Compute, Byte Swap, Event, and others available in the standard task are now available in the safety task.
Broader Device Integration

With the added functionality in RSLogix 5000 v20, users can more easily integrate EtherNet/IP devices via an electronic data sheet and quickly connect to devices often used in applications that require quick tool change. The addition of the following features reduces downtime, improves speed of development, and increases the number of devices that you can integrate into your control system:

**Automatic Device Configuration (ADC)**
This existing feature of RSLogix 5000 has now been expanded to support PowerFlex 755 drives. This enhancement further simplifies maintenance of replacing system components upon a device failure.

- Replace devices quicker with no user intervention
- Reduces downtime because Logix controller automatically flashes and configures the device

**Module Discovery**
This feature is all about improving and simplifying the user experience. Adding devices to the control system no longer requires manual configuration for attributes such as catalog number and slot number. Module Discovery can be done with any device that can be added online such as 1756 I/O, PowerFlex drives, and 1756 communication modules.

**Add-on Profile Expansion**
RSLogix 5000 version 20 provides more choices for control system components, making integration of EtherNet/IP devices easier than ever using EDS add-on profiles.

- Easily integrate EtherNet/IP devices with RSLogix 5000 via their electronic data sheets
- Provides named tags and structures, intuitive configuration screens and other features
- EDS files are easy to find and use
  - all ODVA compliant devices have an EDS file
  - can be uploaded directly from the device

The module discovery feature dynamically finds devices in your control network and simplifies the process of adding them to the RSLogix 5000 I/O tree.
Enhanced Socket Connections
Communicate to a broader range of Ethernet devices that are not native to the Logix system with the open socket enhancements in RSLogix 5000 v20. Connecting devices such as printers, barcode readers, Modbus TCP devices, vision systems, and robots is easy with socket-specific messaging through a standard message instruction.

Scalable Integrated Motion on EtherNet/IP

Motion enhancements in RSLogix 5000 v20 continue to simplify complex motion applications. Advanced synchronization methods are now included for applications such as converting/printing, packaging, assembly, material handling, and robotics. Also available in this release, Integrated Motion on EtherNet/IP capability has now been extended to the CompactLogix 5370 family of controllers.

Expanding Integrated Motion on EtherNet/IP functionality to CompactLogix
Integrated Motion on EtherNet/IP is now available with the CompactLogix 5370 family of controllers. Together with the Kinetix 350, this offering provides a strong motion solution for customers looking for performance and cost competitiveness. Supporting up to 16 integrated motion EtherNet/IP drives, these controllers offer gearing, camming, coordinated motion, and kinematics motion functionality and are ideal for machine builders.

Master Driven Speed Control
This new mode of operation allows single and multi-axis time-based move commands to be driven by a master axis, providing powerful axis synchronization capabilities. Typical motion functions include high performance dynamic path control of robotics, high speed web registration and phase correction functions, CAM on CAM motion, ancillary axis control, and high speed motion path event detection.

From simple control systems with minimal I/O and motion requirements to more complex control systems such as indexing tables and process skids, CompactLogix PACs and Kinetix 350 provide a high performance, scalable motion solution in a space-saving form factor.
System Requirements

Minimum System Requirements for RSLogix 5000:
- Pentium 4 2.8 GHz processor
- 1 GB RAM
- 16 GB available hard disk space
- 1024x768, True Color graphics device

Recommended System For Best User Experience And Faster Downloads:
- Intel Core i5 2.4GHz processor
- 8 GB available hard disk space
- 20GB available free disk space
- DirectX 9 graphics device with WDDM 1.0 or higher driver

Operating System Support:
This version of RSLogix 5000 software has been tested on the following operating systems:
- Microsoft Windows 7 Professional (64-bit) with Service Pack 1
- Microsoft Windows 7 Home Premium (64-bit) with Service Pack 1
- Microsoft Windows 7 Home Premium (32-bit) with Service Pack 1
- Microsoft Windows Vista Business (32-bit) with Service Pack 2
- Microsoft Windows XP Professional with Service Pack 3
- Microsoft Windows Server 2008 R2 Standard Edition with Service Pack 1

Notes:
\(\text{a user account control (UAC) must be set to “always notify”}\)
\(\text{b user account control (UAC) must be turned on}\)