

Profile

PRODUCT



Overview

ControlLogix is a state-of-the-art control platform that integrates multiple control disciplines: sequential, motion, drive, and process. ControlLogix provides a wide range of advanced motion capabilities including indexing, gearing, Position/Time camming, and high-speed registration. There are three components in the ControlLogix motion solution: RSLogix 5000, the Logix5550 controller, and the 1756-M02AE motion module. RSLogix5000 provides complete motion and sequential programming and commissioning support. Motion configuration wizards step you through complete axis configuration and commissioning and an extensive set of 30 motion instructions are available for use in the ladder application program. The Logix5550 controller provides direct in-line execution of all motion commands and can support up to 16 1756-M02AE motion modules for a total of 32 axes. The 1756-M02AE module provides connectivity and control of two drives via +/- 10V analog outputs and 4 MHz quadrature encoder inputs. Super fast 200 μ s position and velocity loop updates allow the most advanced applications to be solved.

Features

The ControlLogix Motion Solution provides:

- ◆ A single programming package, RSLogix5000, for motion and logic to reduce system cost and streamline the development process
- ◆ High performance
 - ◆ direct execution of motion commands on the Logix5550 processor eliminates the need for complex communication and interlocking between the logic controller and motion controller
 - ◆ DSP-based motion modules for fast 200 μ s position and velocity loop closure for all axes provides precise control of motor position
 - ◆ support for up to 32 axes per Logix5550 processor
- ◆ An extensive instruction set for full sequential support plus 30 motion instruction provide support needed for complex applications
- ◆ Simple integration
 - ◆ RSLogix5000 wizard for axis configuration
 - ◆ auto tuning determines all position and velocity loop gains and determines system dynamics
- ◆ Lower system cost
 - ◆ hardware savings from eliminating redundant components
 - ◆ less time to program, commission, and maintain systems

Typical Applications

Applications where integrated high-performance motion and sequential control are required will benefit from the ControlLogix Motion Solution.

Typical applications include:

- ◆ Packaging
 - ◆ Horizontal flow wrappers
 - ◆ Vertical form/fill/seal
 - ◆ Labelers
 - ◆ Cartoners
 - ◆ Baggers
- ◆ Converting
 - ◆ Web processing
 - ◆ Cut-to-length
 - ◆ Flying cutoff
- ◆ Material handling
 - ◆ Infeed/outfeed conveyors
 - ◆ Sorting conveyors
 - ◆ Press feeders

ControlLogix Motion Solution



Allen-Bradley

Catalog Number 1756



Rockwell Automation

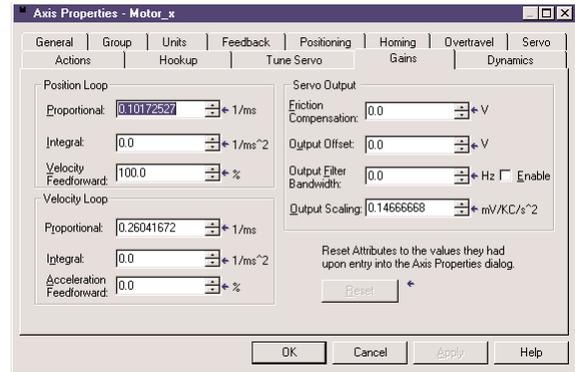
Bringing Together Leading Brands in Industrial Automation

Specifications

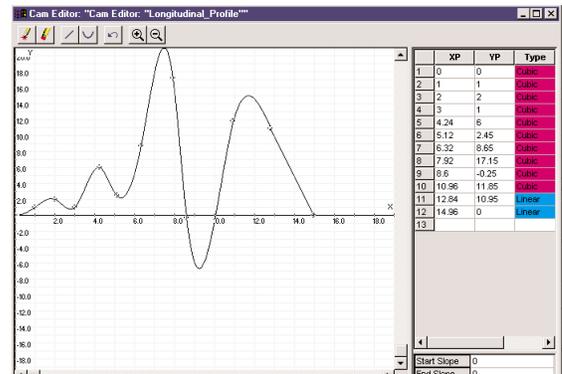
System Specifications

- ◆ 32 axes per Logix 5550 controller -- up to 16 1756-M02AE modules
- ◆ RSLogix 5000 programming and commissioning support
 - ◆ Axis configuration wizards
 - ◆ 30 motion instructions
 - ◆ online editing and monitoring
- ◆ Move type support
 - ◆ Homing
 - ◆ Jogging
 - ◆ Incremental and absolute moves
 - ◆ Gearing
 - ◆ Position/time-based cams with spline and linear segment interpolation
- ◆ Axis Types
 - ◆ Servo
 - ◆ Position only
 - ◆ Virtual
 - ◆ Consumed
- ◆ 2 axes per 1756-M02AE module; 16 M02AE modules can be controlled by each Logix5550 controller (32 axes)

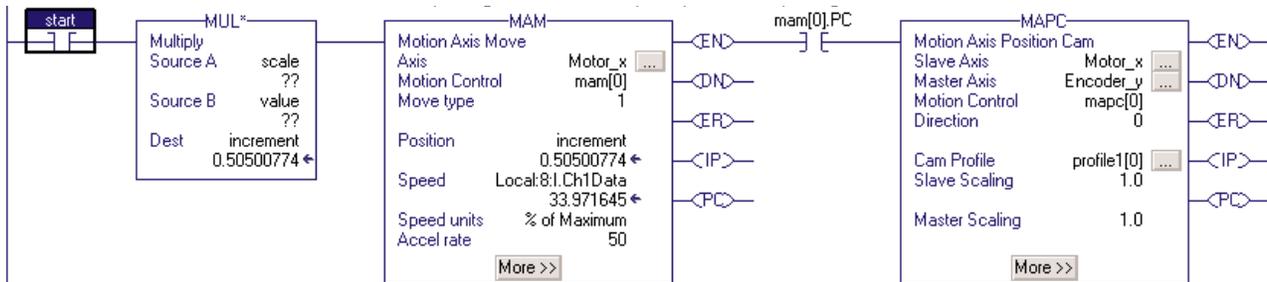
RSLogix 5000 Axis Configuration Dialog



RSLogix 5000 Profile Editor



RSLogix5000 ladder Editor



For more information refer to our web site: www.ab.com/motion

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Americas Headquarters, 1201 South Second Street, Milwaukee, WI 53204, USA, Tel: (1) 414 382-2000, Fax: (1) 414 382-4444
European Headquarters SA/NV, avenue Herrmann Debroux, 46, 1160 Brussels, Belgium, Tel: (32) 2 663 06 00, Fax: (32) 2 663 06 40
Asia Pacific Headquarters, 27/F Citicorp Centre, 18 Whitfield Road, Causeway Bay, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

