STXI Motion System with Rockwell Automation

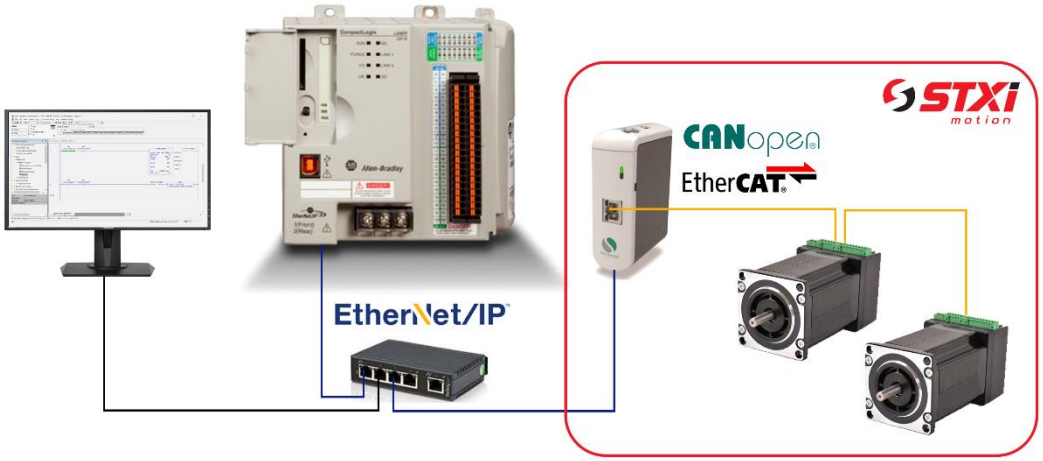
New Feature — *softMC™-EtherNet/IP™ Gateway*

softMC-EtherNet/IP gateway

The softMC multi-axis robotic motion controller now communicates with Rockwell Automation's Studio 5000® software. The two environments can exchange messages directly using EtherNet/IP communication protocol. While the Rockwell Automation machine controllers and Studio 5000 software manage and monitor the workcell performance, the Servotronix softMC motion controller controls auxiliary axes and electromechanical motion systems, by sending EtherNet/IP motion messages over CANopen or EtherCAT networks.

Key benefits

- Control of single and multi-axis motion tasks with Add-On Instructions (AOIs) for the Rockwell Automation ControlLogix and CompactLogix PLCs
- Streamlined programming and execution of the motion function block within the workcell
- A flexible, modular, motion control solution with extended robotics capabilities
- Seamless integration into systems based on Rockwell Automation architecture and PLCs
- Complete, cost-saving motion systems with drive-motor bundles or electromechanical solutions
- Additional digital I/Os – 11 inputs/6 outputs on CDHD servo drives, 4 inputs/2 outputs on stepIM integrated motors



Rockwell Automation

GUI
Studio 5000®
Add-on instructions (AOI)

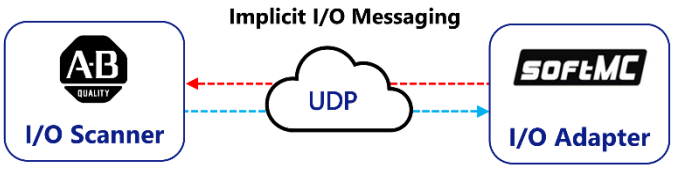
Allen-Bradley PLC

ControlLogix®
CompactLogix™
Micro800™ control system

STXI Motion

Stepper motors
BLDC rotary and linear motors
Servo drives
Gantry systems
Robotic systems up to 6 axes

EtherNet/IP method



The STXI EtherNet/IP communication method uses implicit messaging transmitted continuously using UDP protocol. The softMC deploys a local EtherNet/IP I/O adapter to execute motion tasks messages using CANopen or EtherCAT communication buses to the servo drive.

Application examples

Form/Fill/Seal, Blister, Tray Packaging
Washdown and stainless-steel motor control in primary packaging applications

Labeling Machines
Compact, cabinet-less and cost-saving integrated motor solutions

Cartoning, Sleeve Packaging, Mixed Packaging
Robot controller and drop-in robot solutions for secondary packaging applications

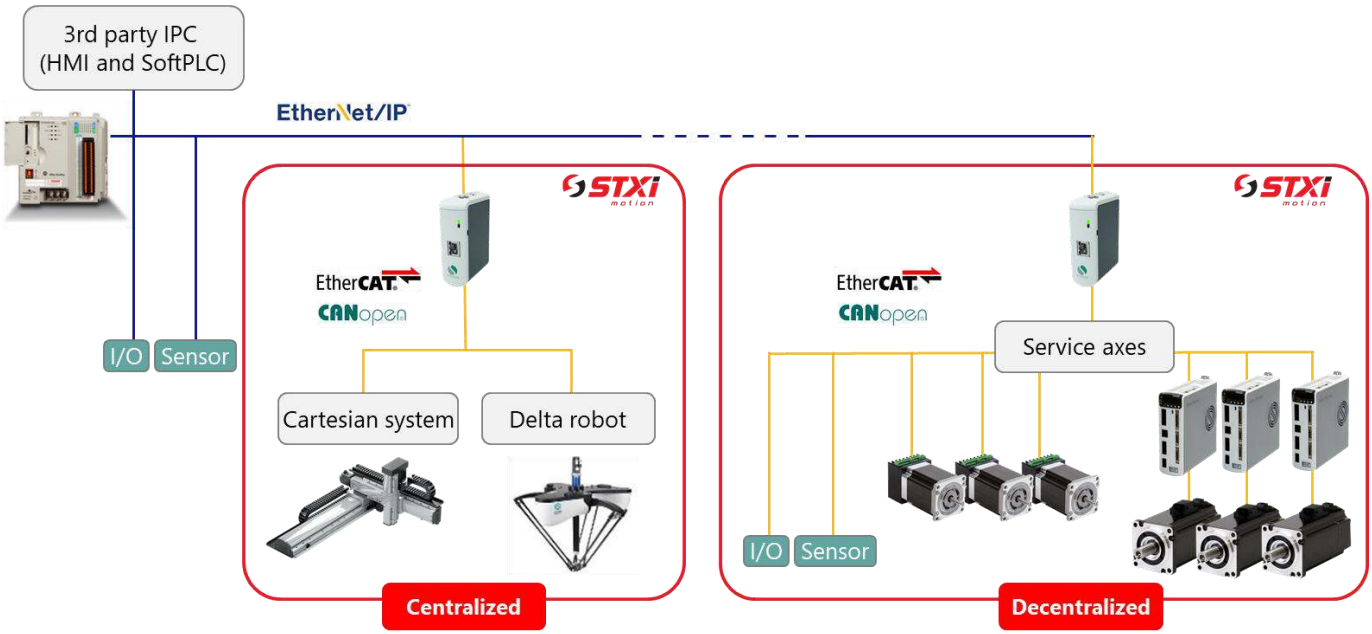
Palletizing
High performance end-effector control

Shrink Wrapping Motion
Controller and inverter solutions for shrink wrapping machines

Bagging
Indexer solutions for bagging machines

Two approaches for an open architecture: Centralized vs. Decentralized

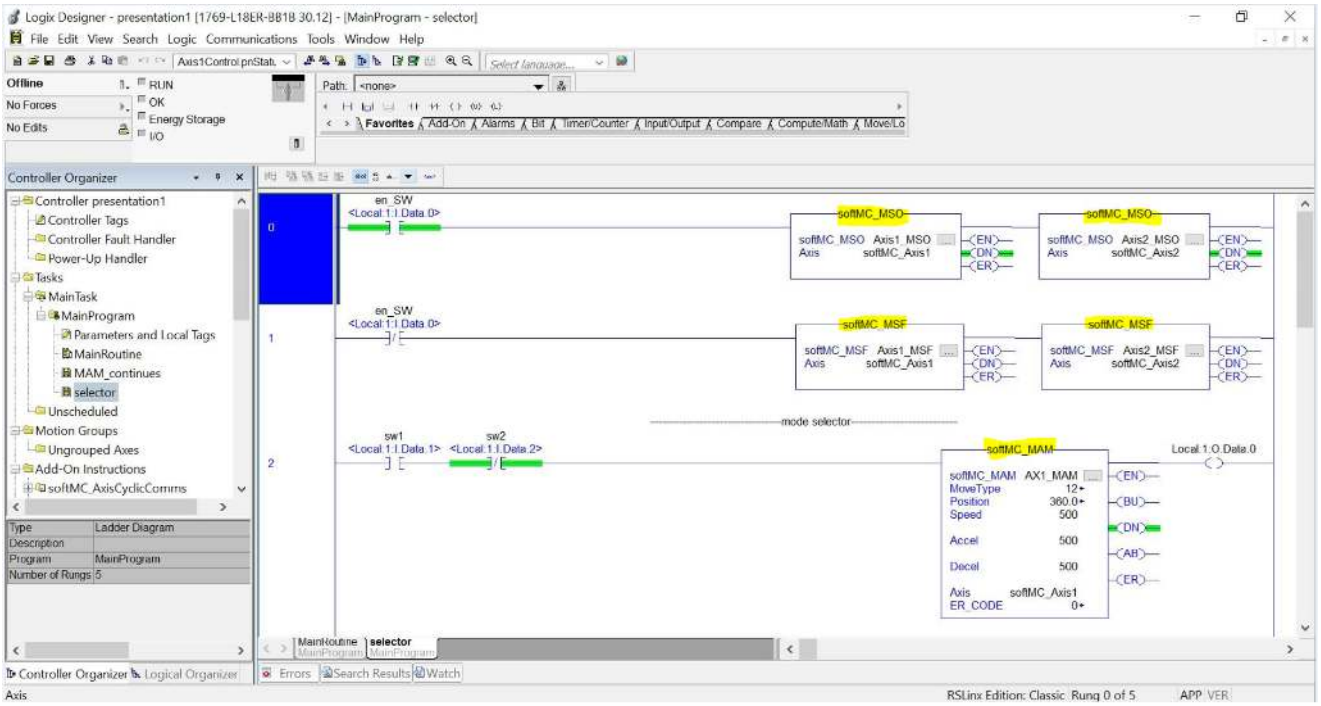
A **centralized** solution uses the softMC as a motion controller for applications performed by synchronized axes, such as delta, cartesian, or gantry robots. A **decentralized** solution uses the softMC primarily as a gateway to the Allen-Bradley PLC. The service axes perform flexible, automated application tasks.



Studio 5000

The integrated STXI Motion and Rockwell Automation systems are supported by Rockwell Automation CompactLogix and ControlLogix PLCs using Studio 5000 versions 32.01, 31.01, 30.02, 28.03, 24.02, and 20.05.

Use the Studio 5000 design environment to program, configure, and maintain your system.



Add On Instructions

STXI Motion provides Add-On Instructions (AOIs) to give integrators a simple way to interface the control systems with the robotic and motion devices. The name format is similar to other Rockwell AOIs. Sample programs are also available.

AOI	Description
softMC_Comms	softMC communications per axis
softMC_MSO	Motion servo on
softMC_MSF	Motion servo off
softMC_MAFR	Motion axis fault reset
softMC_MAS	Motion axis stop
softMC_MAH	Motion axis home
softMC_MAJ	Motion axis jog
softMC_MAM	Motion axis move in either absolute or incremental
softMC_RD_IN	Read axis input (up to 11 inputs)
softMC_WRT_OUT	Write axis output (up to 6 output)
softMC_TASK_Load	Load softMC task
softMC_TASK_Start	Start softMC task
softMC_TASK_Kill	Kill softMC task
softMC_RD_PAR	Read controller parameter
softMC_WRT_PAR	Write controller parameter
softMC_RES	Reset all axes

Ordering information

		MC	-	X	-	YY	-	301	-	0EIP
MC	**softMC motion controller**									
	Fieldbus									
C	CANopen									
E	EtherCAT									
	Number of Axes									
04	4 axes									
06	6 axes									
	softMC model									
301	softMC 301									
	Option									
0EIP	Add-on EtherNet/IP gateway									