MLX300 Software Option
Robot and PLC Integration

Key Benefits
Program in PLC environment, knowledge of robot programming language is not required
Single programming language for entire system
Easy to use library of function blocks and sample programs
World-class Functional Safety Unit available

Compatibility
YRC1000 material handling robots (except HC10)
YRC1000 micro robots (except HC10DT)
DX200 material handling robots

- Next generation of integration for robots and Programmable Logic Controllers (PLCs).
- Enables operator to control and program Yaskawa Motoman robots in a standard PLC programming environment; knowledge of specialized robotic programming language is not required.
- All program execution performed by the PLC. Supported PLCs include:
  - CompactLogix™
  - ControlLogix®
  - GuardLogix®
- Motion control is executed through the superior kinematic algorithms of the robot controller.
- Combination of up to four robots and positioners can be connected to a single MLX300 system.
- Simplifies system design and environment due to reduced I/O boards, hardware and networking requirements.
- Simplified safety design eliminates redundant electrical interfaces and consolidates hardware to optimize floorspace.
- Familiarity of controls among maintenance technicians enables faster troubleshooting.
- Robust set of Add-on Instructions (AOIs) and HMI screens that are specific to robot configuration and motion control.
- All peripheral devices - including sensors, cameras and conveyors - are connected through the PLC.
- MotoSim® EG-VRC can be used to create offline simulations to verify robot reach and evaluate cycle times.
- The robot workcell can be redeployed in a non-PLC mode.
The MLX300 system components include PLC and HMI software, an Add-On Instruction set and interface hardware for use with optional pendants or a PanelView™ display.

**Comprehensive Set of PLC Function Blocks**

- **Motion instructions**
  - Linear, Joint and Incremental
  - Jogging

- **System commands**
  - Enable, Abort, Hold, etc.
  - Error handling
  - I/O handling

- **Robot configurations**
  - Tools, userframes
  - Interference zones
  - Absolute data (home positions)

**Specifications**

- **Compatibility**
  - All YRC1000 material handling robot models (except HC10)
  - All YRC1000micro robot models (except HC10DT)
  - All DX200 material handling robot models

- A combination of up to four non-coordinated robots and positioners can be supported by a single MLX300 system (e.g. 3 robots, 1 positioner)

- The number of motions, userframes or tools is limited only by PLC memory

- Functional Safety Unit (FSU) is available as an option

- Conveyor tracking is available as an option