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Advanced Features and Functions of Logix Systems

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Agenda

1. RSLogix 5000 V20 Features & Functions

2. Demonstration

3. Hands on Lab

4. Survey

RSLogix 5000 V20 Overview

Software Extensions

- Large Device ADC
- EDS AOP
- Module Discovery
- EtherNet/IP
 - Unicast Safety IO
 - Sockets 1756-ENx
 - Large Packets
 - Quick Connect
- Safety
 - Floating Point in Safety Task
 - Safety Instruction additions
- Motion
 - Master Driven Speed Control
 - Acceleration compensation for interpolated actual position

New Controller Support

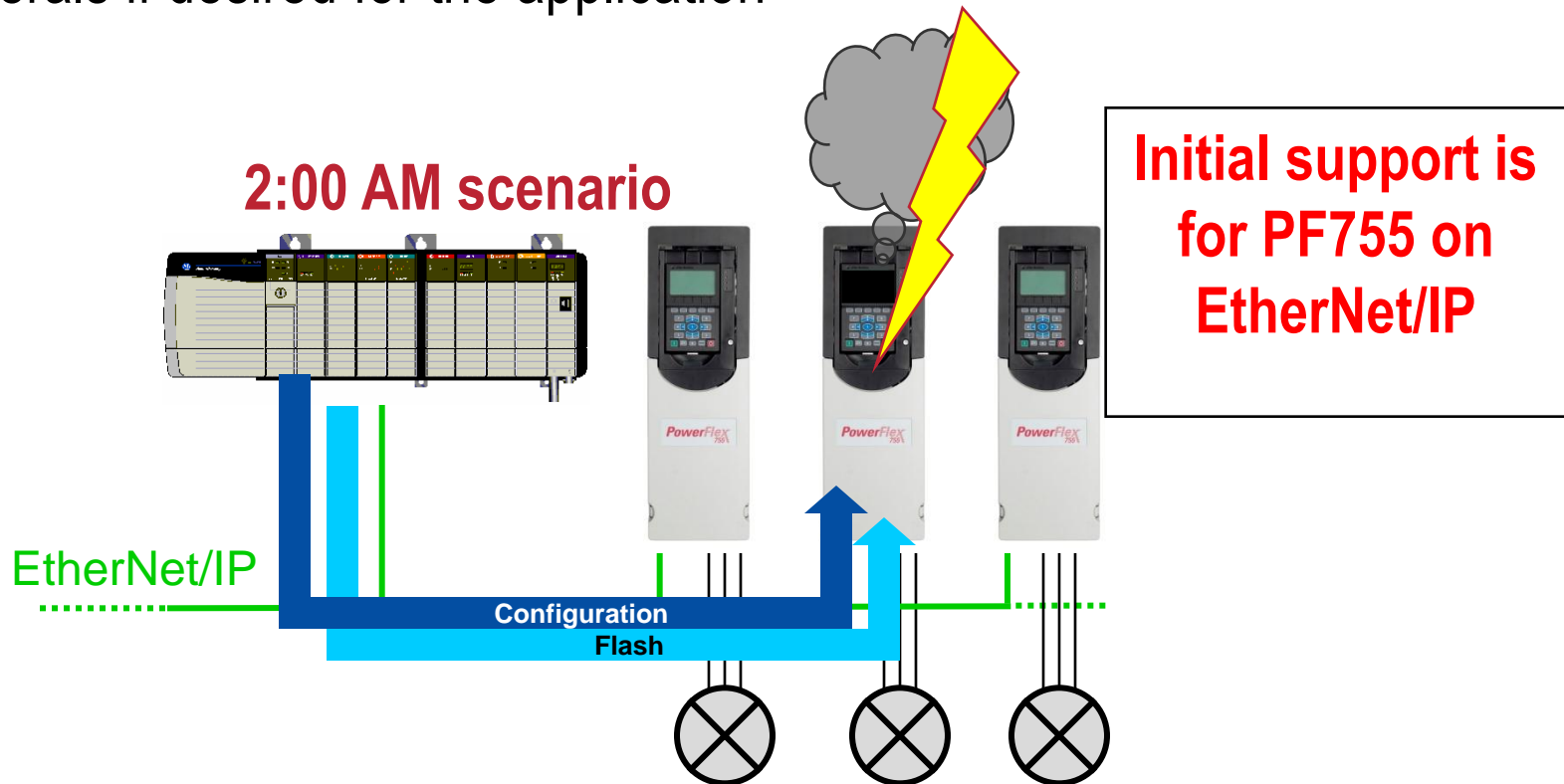
- L3, L2, L1, L71, L7xS

New Profiles

- 1756 IO w/ Peer Control
- 1794 Flex on EtherNet/IP with DLR
- Armorstart on EtherNet/IP with DLR
- Motor Protection EtherNet/IP Adapter
- SLC-500 EtherNet/IP Adapter
- Kinetix 350 – EtherNet/IP CIP Motion

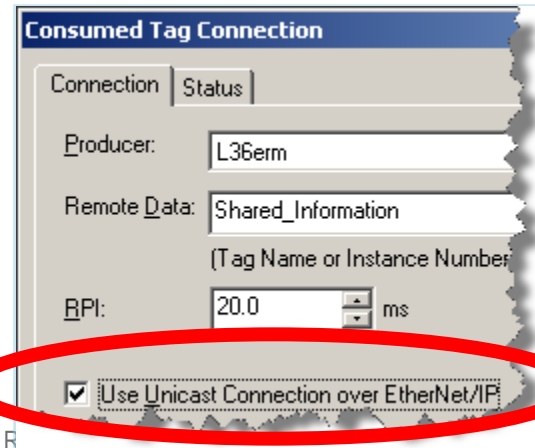
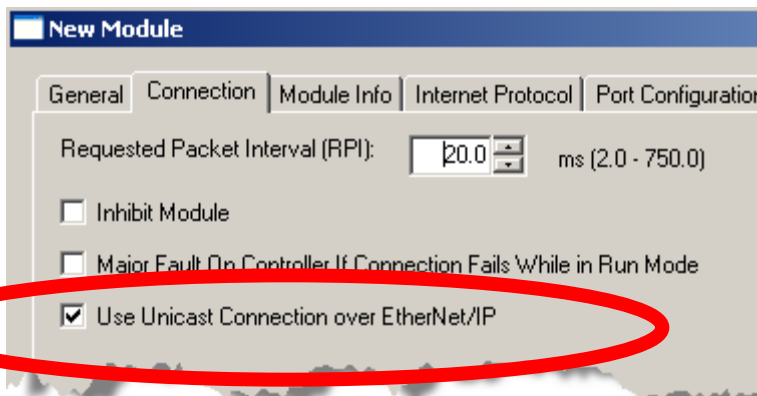
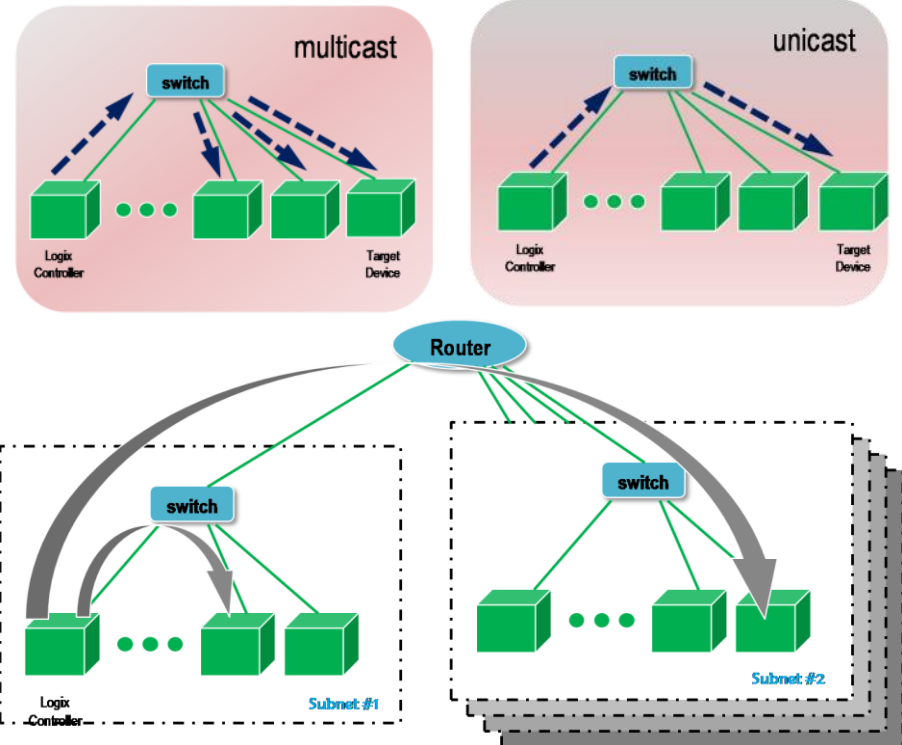
Automatic Device Configuration (ADC)

- A v20 Logix-based feature that allows a user to configure their Logix system to automatically download a “large” device’s configuration - typically after it has been replaced
- Also works with Firmware Supervisor, which flashes the drive and/or peripherals if desired for the application



Unicast support for Safety I/O

- Allow communications to span multiple VLANs or subnets
 - Example application includes interlocking of remote controllers over plant infrastructure
- Enables a Logix controller to **communicate to other EtherNet/IP devices via unicast**
 - Standard Produced/Consumed Tags V17
 - Standard I/O - V18
 - Safety Produced/Consumed Tags – V19
 - **Safety I/O – V20**

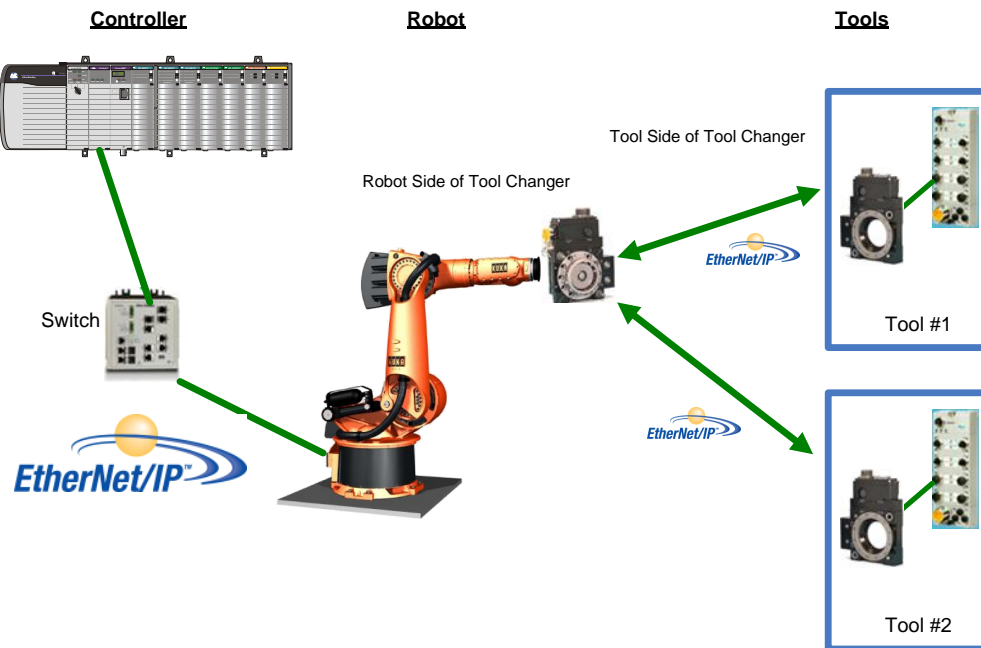


QuickConnect - EtherNet/IP

Enable EtherNet/IP Devices to Quickly Power Up

- DeviceNet has offered this solution
- Frequently used in Automotive applications where a robot arm is required to "change tool" on the fly to switch task.

500ms Quick Connect Timing



Motion Extensions

Master Driven Speed Control

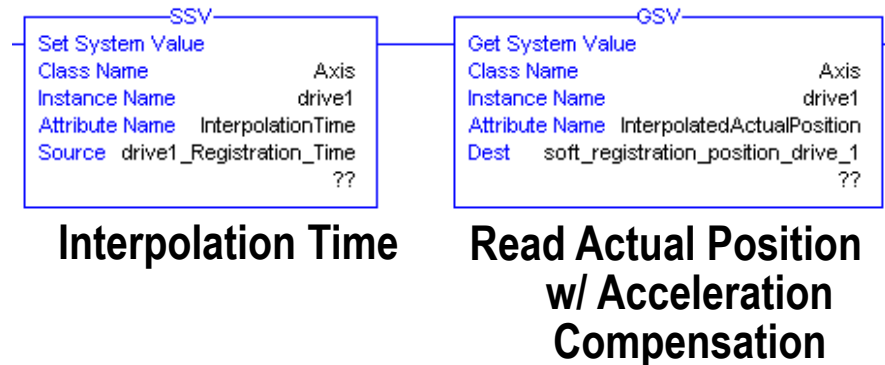
- Axis position drives motion time based moves
- Use with MAM, MAJ, MATC, MCLM, MCCM

	CAM instructions	Single axis motion	Coordinated motion
Time driven	MATC	MAM, MAJ	MCLM, MCCM
External input	MAPC MATC	MAM, MAJ	MCLM, MCCM

Using MDSC

Interpolated Actual Position Acceleration Compensation

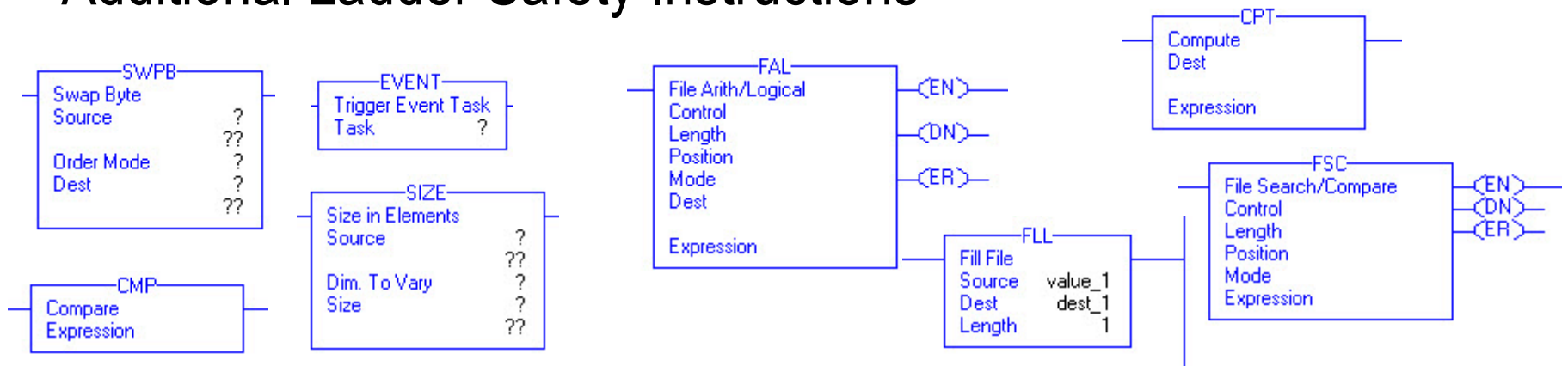
- Apply acceleration compensation when reading interpolated actual position
- Improves accuracy of interpolated position by accounting for axis acceleration



GuardLogix - Enhancements

New L72S, L73S Controllers & PointGuard Analog Input Module

- Safety I/O Unicast
- Safety Analog input instruction (SIL 3 Certified)
- Floating Point Safety Data
- Additional Ladder Safety Instructions



New Controllers introduced in V20

ControlLogix

- 1756-L71 (2MB)
- 1756-L73XT (8MB)



GuardLogix

- 1756-L72S, 1756-L73S



CompactLogix

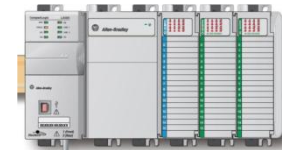
- Integrated Motion
- More Memory
- Higher Performance



L16ER
L18ER
L18ERM



L24ERQB1B
L24ERQBFC1B
L27ERMQBFC1B



L30ER
L33ER
L30ERM
L33ERM
L36ERM
L30ERNSE

High Availability Recent Additions

Higher Performance



Support for ControlLogix 5570 series of PACs

Common Network on EtherNet/IP



Common network backbone for redundant architectures

High Availability Network



EtherNet/IP Device Level Ring

High Availability IO



1715 Redundant IO

High Availability HMI

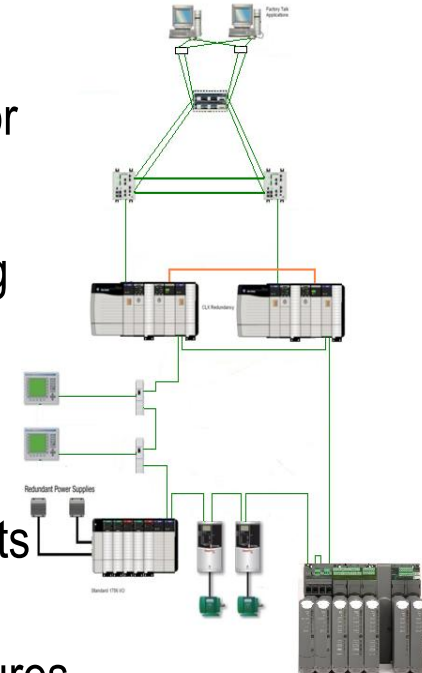


Support for Alarms and Events

Enhanced Features



RSLogix 5000 V19/19.50 Features



Future: V20.50 Logix Redundancy
Includes V20 features
Adds EN2F support

New Profiles



Flex I/O
EIP w/DLR



ArmorStart
EIP w/DLR



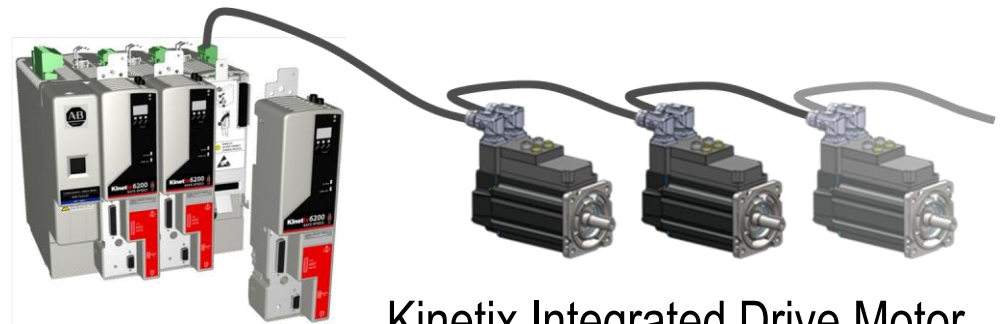
Motor Protection
EIP Adapter
w/DLR



SLC EIP Adapter



Kinetix 350
EtherNet/IP CIP
Motion



Kinetix Integrated Drive Motor
(Sercos Interface)

Operating System Availability

	V18	V19	V20	V21
Operating Systems	Windows XP	Windows XP	Windows XP	1
	Server 2003	Server 2003	Server 2003	2
	Server 2008	Server 2008	Server 2008	Server 2008
	Vista	Vista	Vista	3
	4	Windows 7	Windows 7	Windows 7

1
2
3

V20 is the last version of RSLogix 5000 available on Windows XP, Server 2003, and Vista

4

Pre V19 versions are not available on Windows 7

Use OS Virtualization or W7 XP Mode to run pre V19 versions on W7
See Knowledgebase Answer ID 67020 “- RSLogix 5/500/5000 on Windows Vista and Windows 7” for details

Controller Firmware Support

		Firmware Available			
		V18	V19	V20	V21
Controller	1756-L61, L62, L63, L64, L65 1756-L61S, L62S, L63S	Yes	Yes	Yes	No Firmware
	1768-L43, L45 1768-L43S, L45S 1769-L35CR, L35E, L32E, L32C, L31 1769-L23QBFC1B, L23EQB1B,	Yes	Yes	Yes	No Firmware
	ControlLogix L7 Family	Yes L73, L75	Yes L72, L74	Yes L71	Yes
	CompactLogix L1ER, L2ER, L3ER	N/A	N/A	Yes	Yes

V20 is last version of RSLogix 5000 to allow selection and creation of some existing controllers.

V21 firmware will not be available for these controllers

V20 will be in “extended maintenance mode” as needed to support installed base

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Questions?