

LISTEN.  
THINK.  
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# Integrated Motion on Ethernet/IP; a Scalable Motion System on a Single Network

Introduction to CIP Motion  
with Kinetix® 350

# Goals of Lab

- Learn how to apply Kinetix Integrated Motion, with Kinetix 350 and CompactLogix™, to control a wide range of machines on standard EtherNet/IP.
- This new offering was designed to provide scalability by simplifying integration of the entire control solution on one network - including HMI, controller, motion, and I/O.
- This lab exercise demonstrates the following concepts of Integrated Motion on EtherNet/IP:
  - Time efficient nature of using an Integrated Motion solution
  - Benefits of Integrated Motion on EtherNet/IP
  - Power and performance-oriented nature of the Integrated Motion solution
  - Ease of motion system setup utilizing the 'Drives & Motion Accelerator Toolkit'

# What You'll Do

- You will see how easy it is to create an integrated motion solution by doing the following:
  - Creating and configuring motion axes using RSLogix™ 5000
  - Learning basic motion-direct commands
  - Utilizing the 'Drives & Motion Accelerator Toolkit' to speed programming of your motion application
  - Learning some basic troubleshooting techniques
  - Being introduced to the advanced diagnostic tools available in the controller
  - Exploring the functionality of trending in the controller and the utility of cams

# The Equipment

- CompactLogix 5373 Demo Box
  - 1769-L36ERM CompactLogix Controller and Chassis
    - Analog I/O and Discrete I/O
  - Point I/O on EtherNet/IP (Bulletin 1734)
    - Analog I/O, Discrete I/O, DeviceLogix Enabled I/O
  - ArmorBlock I/O on EtherNet/IP with Sequence of Events (Bulletin 1732E)
    - Time-stamped discrete inputs
- Kinetix 350 Demo Box
  - Kinetix 350 Servo Drive (Bulletin 2097)
    - Single axis, CIP Motion servo drives
  - TL-Series Motors (Bulletin TLY)
    - Low inertia, high power density servo motors
- Computer

# Notes About the Lab

- The HMI should be loaded on your desktop
  - Do not click “OK” until instructed to do so
  - Do not click the “Exit” button in the HMI
- The labs are running inside of virtual machines
  - This improves consistency between labs
- The version of RSLogix 5000 in the lab is not yet released
  - This is beta software still being finalized
- This lab extensively utilizes the ‘Drives and Motion Accelerator Toolkit’
  - This modular framework provides electrical drawings, panel layouts, sample code and HMI screens to speed new machine development and design

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Questions?  
Comments?  
Concerns?

Please ask your lab instructor.