Industrial Automation

Tech Note 17 Allen-Bradley L5K Driver: Routing Path

Abstract

This document describes how to use the Routing Path field of the Allen-Bradley Native Tags via L5K file drivers.

Products Families

G3 Series HMI / G3 Kadet HMI / Graphite® HMI / Modular Controller / Data Station Plus / ProducTVity Station

Use Case: AB L5K Routing Path

The Routing Path is required when the CPU with the required data is not in the same rack as the Ethernet communications module

Required Software

Crimson® 3.0

Introduction

By default, the Native Tags via L5K File Enhanced driver communicates to a processor in slot 0 of the same chassis which contains the Ethernet module. The Routing Path allows for a connection to a processor in a different slot or even in a different chassis. It is a series of comma delimited numbers, and potentially IP addresses, that directs the data from port to port between the communication modules from the Ethernet module and the target processor.

How it Works

The numbers represent module ports, slot locations, as well as node or IP addresses. This comma delimited string is sent after the IP address, of the Ethernet module that the Red Lion will connect to, indicating the final destination of the packet.

Application: CPU in the Same Rack, Not in Slot 0

The data sent from the unit running Crimson needs to be sent to the Ethernet module's IP address (**10.10.4.120**), to the backplane of the rack (which is port **1** of all modules), to the CPU in slot **6**. The Crimson Routing Path should be set to: **1,6**

Application: CPU in a Different Rack

Figure 1, below, represents a 2 rack system where the Ethernet module and CPU are in separate racks; the two racks are connected via ControlNet. The data sent from the unit running Crimson needs to be sent to the Ethernet module's IP address (**10.10.4.120**), to the backplane of the rack (which is port **1** of all modules), to the ControlNet module in slot **6**, out of port **2** (the ControlNet port) to ControlNet node **10**, to the backplane (port **1** again), to the CPU in slot **2**. The Crimson Routing Path should be set to: **1,6,2,10,1,2**

Figure 1

For more information: http://www.redlion.net/support/policies-statements/warranty-statement