

AN707 - Developing an Application Program for CAN to Ethernet Converter (AX140900)

Introduction

This note provides a basic guideline for developing personalized application programs to interface with the AX140900 CAN/Ethernet Converter unit.

Program Aides

The SSP

This software is a developmental tool, designed to help users jumpstart development on personalized application programs which interface with the CAN-ENET converter. It is available on the Axiomatic website, at: www.axiomatic.com.

A collection of SSP coding examples (relating to receiving data, sending data, requesting converter status, etc.) may be found on the website as shown below:

AX140900	CAN/Ethernet Converter	UMAX140900
Ethernet to CAN Converter Communication Protocol	Ethernet to CAN Converter Communication Protocol	Refer to document.
Ethernet to CAN Converter Discovery Protocol	Ethernet to CAN Converter Discovery Protocol	Refer to document.
		APPLICATION - Ethernet to CAN Converter Discovery Protocol
Ethernet to CAN Converter Health Status	Ethernet to CAN Converter Health Status	Ethernet to CAN Converter Health Status
AX140910	Software Support Package for CAN/Ethernet Converter	UMAX140910 SSP Software Version 1.0.2A

The Ethernet to CAN Converter Communication Protocol

This protocol provides exact information on how the CAN data is encoded in the ENET frames.

The CAN Assistant - Scope

The 'CAN Assistant – Scope' software is a convenient program for displaying CAN data on a laptop or PC. It also provides an excellent starting point for testing.

- When using this software, if the CAN-ENET converter is selected as the interface device, the Scope window will display the CAN data as it is being sent on the ENET frames. The data is like a typical CAN 'sniffing' or 'scoping' window.
- Just the CAN ID + bytes 1 – 8 are included.
- The data may be logged to a text file.

The 'CAN Assistant – Scope' is also available for download on the Axiomatic website, at:

www.axiomatic.com

Electronic Assistant Service Tool	Type	Downloads
Software License Agreement	Document	License Agreement Axiomatic
Electronic Assistant and USB-CAN Converter	User Manual	UMAX07050X
Using the EA with Windows 7, 8, 10	Application Note	EA and Windows 7, 8 & 10
Electronic Assistant	Program	ElectronicAssistantSetup V5.15.117.0
USB-CAN Drivers	Drivers	USBCANDrivers
CAN Assistant – Scope	User Manual	UMAX070501SCO
CAN Assistant – Scope	Program	CANAssistantScopeSetup V3.3.0

Extender Setup

Two CAN-ENET Converters may be used for an 'extender' type of setup; in this case, the data on each side will be an independent CAN network, and the modules will be connected via Ethernet. A description of how this setup works may be found below:

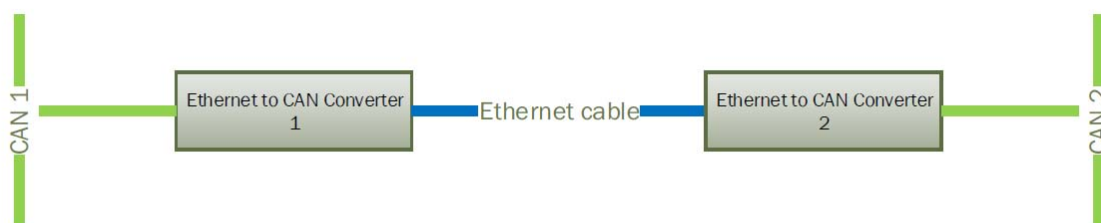


Figure 22. Simple Local Connection

Converter Configuration

After the physical connection is established, the converters should be configured to exchange messages between one another. Since the converters support a client/server communication model, one of the converters should be a server and the other one should be a client.

Version	Date	Author	Comments
1.00	May 6, 2021	Greg LaRonde/Kiril Mojsov	Initial Release