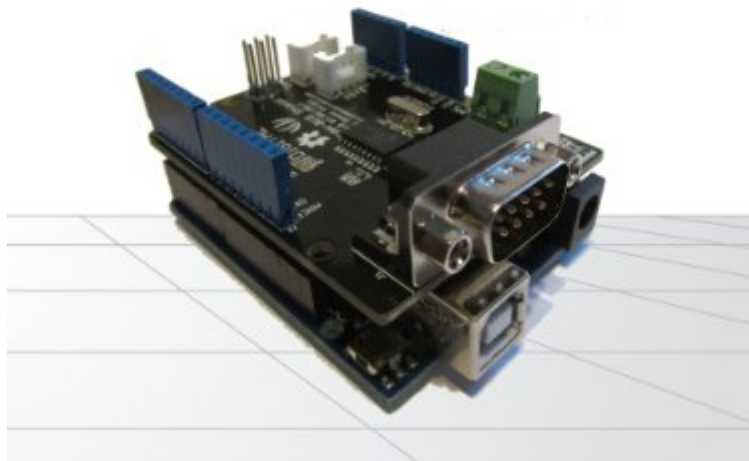# Controller Area Network Prototyping With Arduino: Creating CAN Monitoring, Diagnostics, And Simulation Applications

Copperhill Media Corporation
Creating the Context in Which Other People Can Think

Controller Area Network (CAN) Prototyping with Arduino

By Wilfried Voss

CAN Driver Implementation & Library Functions
CAN Network Monitoring, Simulation & Diagnostics
CAN Data Display via Windows/Linux GUI

Synopsis

While the Arduino is not widely considered an industrial-strength solution, it provides, due to its low price and ease of programming, the perfect prototyping platform for all kinds of Controller Area Network (CAN) applications.This book, written by a leading expert on CAN technologies, guides the reader through the process of acquiring all necessary hardware and software components, the implementation of the CAN driver, and the implementation of programs (Arduino Sketches) to read, send, process, and display data from and to a CAN network.The collection of programming examples cumulates into a full-fledged USB-to-CAN Gateway communicating with a Windows/Linux PC. This book will enable you to achieve CAN functionality literally within only a few hours.The topics include:â ¢Introduction to Controller Area Networkâ ¢Prototyping Hardware and its Variantsâ ¢Arduino CAN Shieldsâ ¢CAN Driver Implementation and Library Functionsâ ¢Simple CAN Test Programsâ ¢CAN Network Monitoring, Simulation, and Diagnostics Programâ ¢CAN Data Display via Windows/Linux GUIAbout the AuthorWilfried Voss is the author of the â œComprehensible Guideâ • series of technical literature covering topics like Controller Area Network (CAN), SAE J1939, Industrial Ethernet, and Servo Motor Sizing. Mr. Voss has worked in the CAN industry since 1997 and before that was a motion control engineer in the paper manufacturing industry. He has a masterâ ™s degree in electrical engineering from the University of Wuppertal in Germany.During the past years, Mr. Voss conducted numerous seminars on industrial fieldbus systems such as CAN, CANopen, SAE J1939, Industrial Ethernet, and more during various Real Time Embedded And Computing Conferences (RTECC), ISA (Instrumentation, Systems, and Automation Society) conferences and various other events all over the United States and Canada.

Book Information

File Size: 1016 KB

Print Length: 44 pages

Publisher: Copperhill Technologies (March 30, 2014)

Publication Date: March 30, 2014

Sold by: Â Digital Services LLC

Language: English

ASIN: B00JDSSIWC

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #332,317 Paid in Kindle Store (See Top 100 Paid in Kindle Store)   #28 inÂ Books > Computers & Technology > Networking & Cloud Computing > Data in the Enterprise > Electronic Data Interchange (EDI)   #200 inÂ Books > Computers & Technology > Hardware & DIY > Single Board Computers   #287 inÂ Kindle Store > Kindle Short Reads > 90 minutes (44-64 pages) > Computers & Technology

Customer Reviews

I used this book to get up and running with CAN bus on an Arduino, but it is fairly short and you will need additional information as well. In the end I was able to create an OBDII reader for automotive systems using an Arduino DUE, and this book did give me some key pieces of information. But don't expect everything to be there. For example, I had to do some more Googling to find the actual PIDs used by a typical car ECU.Wilfried Voss does indeed know what he is talking about, so I couldn't find any bad information in the book.But the bottom line is that if you want to design CAN bus into your Arduino project, you will find some very valuable information in this book. But since CAN bus is used in so many areas, don't expect this book to tell you everything you need for your project. Good luck.

Like everyone said, this is a 10-minute summary read through and about an hour to implement all the examples if you're already familiar with the hardware/software mentioned.If you're going to be upset by spending money on what is essentially a clear walk through of your first project using a CAN-BUS shield then don't buy the book.Buy this if you want a very guided first repetition to get you started with CAN and Arduino.Hardware:- Arduino Uno- CAN-BUS shield by Seeedstudio- USB-to-CAN adapter (Windows compatible)Software- Visual Studio 2012 and C# installed- Arduino default applications

This isnt a book. It is a pamphlet and not a well written one at that. Not worth the time or money.

Good book with concise examples enough to get you up and running. Had a strange issue with final example using C# on Windows. Had some strange interplay between C# program and Arduino sketch. Otherwise good to the point book.

I have several of Dr. Voss's publications. This one is just as clear and readable as the rest, but had less information than I had hoped for and is the reason for 4 instead of 5 stars.I'm hoping for a second edition.

Good as a quick reference for those already familiar with Arduino and CAN basics.

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