SCAB: serial to CAN bridge

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Abstract

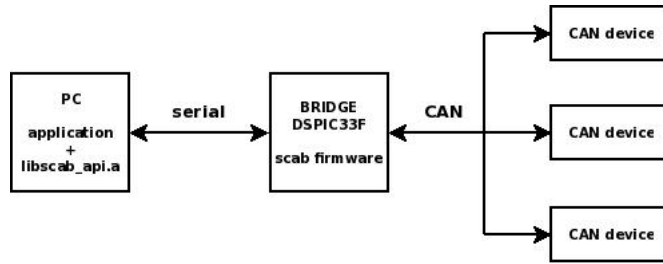This document describes the SCAB api library and the DSPIC33F firmware.

Figure 1: global view

1 Introduction

1.1 Overview

Usually, PCs do not have the hardware interfaces required to communicate on a CAN network. SCAB aims at adding CAN connectivity to PCs by bridging a serial port. To do so, 2 softwares are provided:

- a firmware to be flashed on a DSPIC33F board,

- a programming interface to be used by the client application.

1.2 Availability

The project source code is maintained in a GIT repository:

https://github.com/texane/scab

1.3 Dependencies

The project depends on the following softwares:

- a working LINUX system with standard GNU tools,

- MPLABX version 1.0 .

Note that WINDOWS and MACOSX are not yet supported.

2 Host programming interface

2.1 Compiling the library

2.2 Interface documentation

2.3 Example program

2.4 Limitations

3 Device firmware

3.1 Limitations

4 Host to device protocol