

Application note on Realizer

Title: Application note on Realizer
Subject: ST72F521R9 CAN plug-in
Date: 15 January 2003
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Using CAN

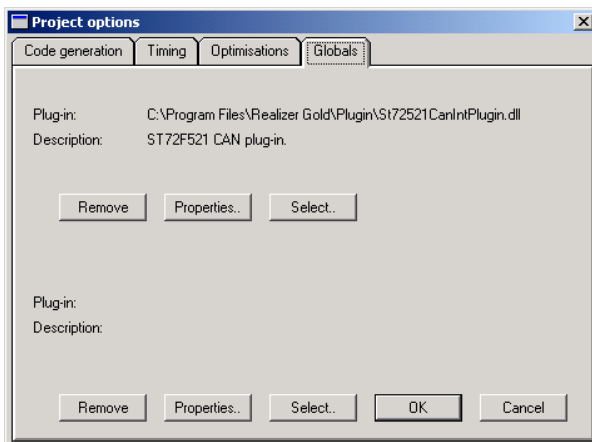
This document describes the use of the ST72F521 CAN plug-in.

With the CAN plug-in the user is able to communicate between different Realizer modules connected by the same CAN-network.

After creating a Realizer CAN project, you have to select the CAN plug-in.

Selecting the CAN plugin

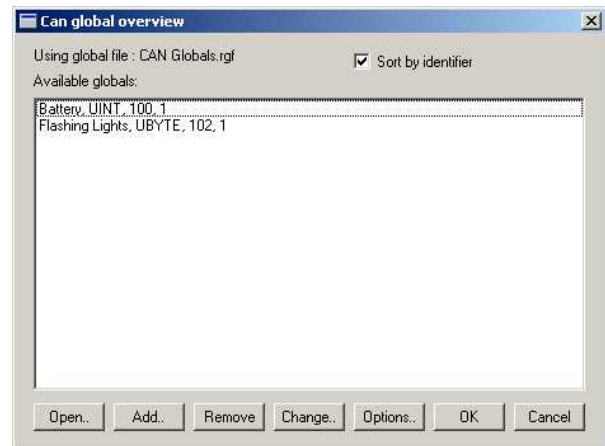
- Options -> Project -> Globals -> Select ST72521CANIntPlugin.dll.



Creating the RGF (Realizer Global File)

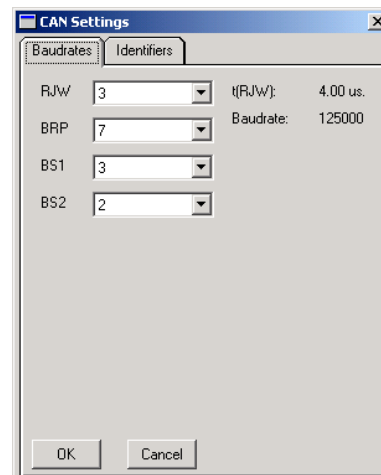
In each of the modules connected to the same CAN-network, the same global file can be used. This file contains all of the variables defined for the CAN-network.

- At the tab sheet *Globals*, by pressing the *Properties* button, the user opens an existing global file or create one by pressing *Open*.

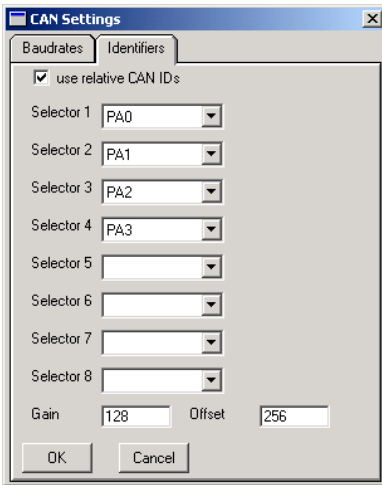


Setting the Options

By pressing the *Options* button, the user can set the CAN options. The first tab sheet (*Baudrates*) defines the baud rate of the CAN peripheral.



Within the second tab sheet (*Identifiers*) the option to use relative CAN identifiers can be enabled and configured.



By definition, relative CAN identifiers are calculated at startup using the value of 1 till 8 input pins.

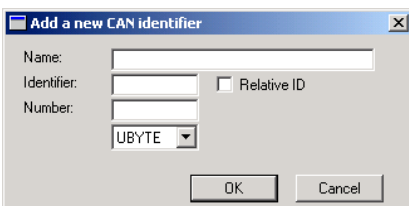
$$\text{Absolute CAN Identifier} = \text{Offset} + \text{Selector} * \text{Gain} + \text{CAN identifier.}$$

$$\text{Selector} = \text{Selector1} * 1 + \text{Selector2} * 2 + \text{Selector3} * 4 + \text{Selector4} * 8, \text{ etc.}$$

More information on CAN identifiers can be found in "Adding a CAN-variable".

Adding a CAN-variable

After opening or creating a global file, the user can add CAN-variables to the global file by pressing "Add". These variables can be used through the complete CAN-network.



Several CAN variables can share the same *Identifier*, by using the *number* the offset in the CAN message is defined. CAN messages can contain up till 8 data bytes.

Using CAN-symbols

- To use the CAN-symbols in the schematics, the user needs to open the globals.lib file by right clicking on the libraries in the project viewer. The globals library shows the user the following symbols.



- The placed symbols can be connected to one of the defined globals by double clicking on the symbol.

