

This text is intended as an accompaniment to software and hardware environment for monitoring and controlling digital buses named Bus-Spy. The thesis analyses the problems of bus control, bus monitoring and existing solutions. It offers a solution in form of a very modular hardware/software environment which is capable of complete monitoring and controlling the i2c (Inter Integrated Circuit) bus and the CAN (Controller Area Network) bus in their basic form. It also explains the software and hardware design of the environment and describes the implementation.

The thesis should mainly serve low level and system developers, firmware engineers or anyone involved with digital bus related communication.