

# Distributed Real-Time Applications with TDL

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## Description

The aim of the master thesis is to explore tool support for programming distributed systems using TDL and its infrastructure. TDL implements the timed model and uses time-triggered execution of tasks. To be able to distribute TDL modules on two different nodes requires means for reliable and deterministic communication over a shared media.

The underlying setup for the practical part is RTLinux(Pro), an implemented E-machine for RTLinux(Pro), a prototype of a solution for communication between two TDL modules in Java, a MAC-Layer and algorithms for RTLinux(Pro). Within the diploma thesis, we implement an algorithm for bus scheduling (scheduling messages over a shared media). The algorithm will be visualized by a software tool implemented in Java. The format of the bus schedule is not fixed at this moment in time.

The thesis will be finished in SS 2005.