

BG_RT Library

Real-Time Simulation with Standard DAQ Cards

BG_RT

Modelica
Library

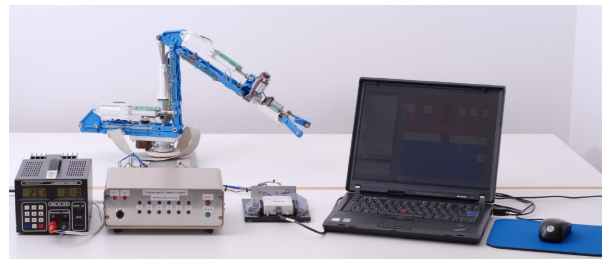
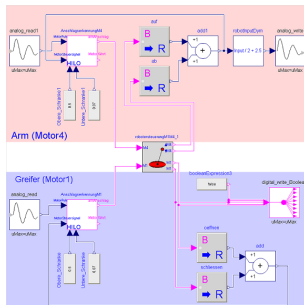
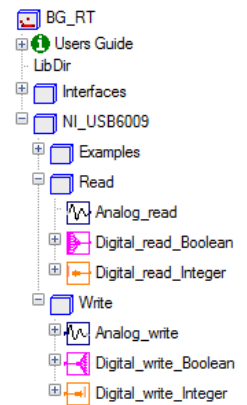
developed and
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The Bausch-Gall Real-Time Library (BG_RT) includes components to access data acquisition (DAQ) cards directly from a Modelica simulator.

It was designed to allow the usage of the Dymola *Realtime* option with DAQ cards without any further programming effort. Currently we support the card NI-USB6009 from National Instruments. Functions for reading and writing analog and digital data are provided.

BG_RT allows easy and low cost HiL-simulation. Only a standard Windows PC with Dymola, option Realtime and a DAQ card are needed.

The library is delivered with complete source code, including the code of all C-routines. Therefore it can be used as programming template for other DAQ cards.



Development

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BAUSCH-GALL GmbH

Availability

The BG_RT Library is currently available for Dymola 2014 FD01 (Modelica 3.2.1). A version for SimulationX is planned. We also assist with the adaption of other DAQ cards.