

# BG\_RT Library

Real-Time Simulation with Standard DAQ Cards

BG\_RT

Modelica  
Library

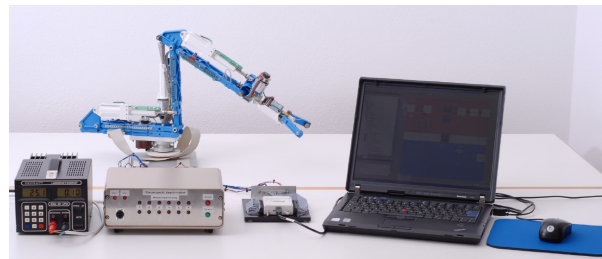
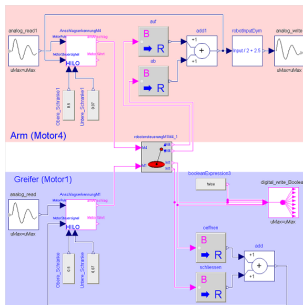
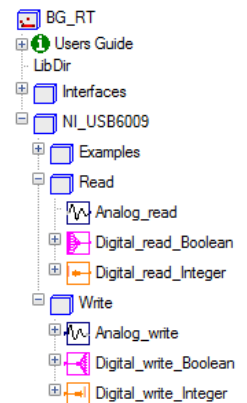
developed and  
distributed by BAUSCH-GALL GmbH

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

BAUSCH-GALL GmbH, Muenchen, Germany ([www.bausch-gall.de](http://www.bausch-gall.de))

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## Availability

The BG\_RT Library is currently available for Dymola 7.4 (Modelica 3.1). A version for SimulationX is planned. We also assist with the adaption of other DAQ cards.