## B&R Automation Studio Target for Simulink

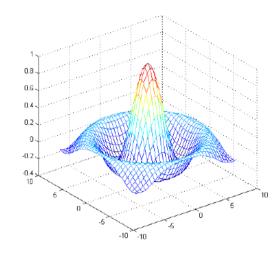


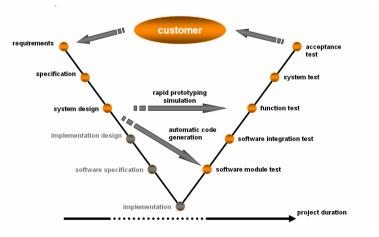


#### Intentions



- Increasing demands in industrial automation
  - Presuppose simulation routines in advance
- Sophisticated control algorithms
  - Require advanced development tools
- Well-educated specialists
  - Want to concentrate on their core competences
- Automatic Code Generation
  - Reduces time-to-market
  - Minimizes the risk of coding errors
  - Helps saving costs

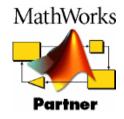




## The MathWorks

- MATLAB and Simulink
  - Basis for B&R's Automatic Code Generation
  - Powerful development tool
  - Wide-spread all over the world
- Real-Time Workshop and Real-Time Workshop Embedded Coder
  - Automatic Code Generation from Simulink models
  - Translation into PLC language
  - Well-proven over many years
- Stateflow and Stateflow Coder
  - Modeling of sequences
  - Automatic Code Generation of step sequences
  - Optional



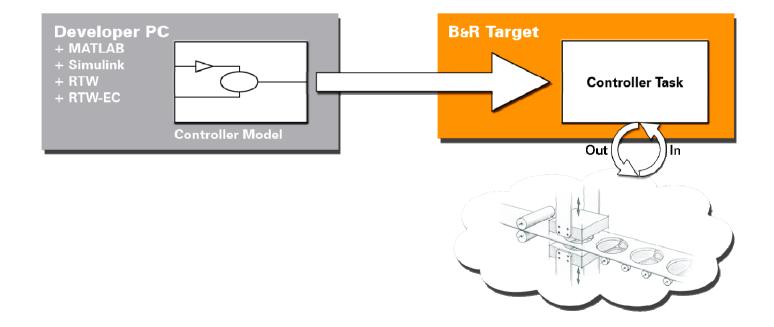




# **Rapid Prototyping**



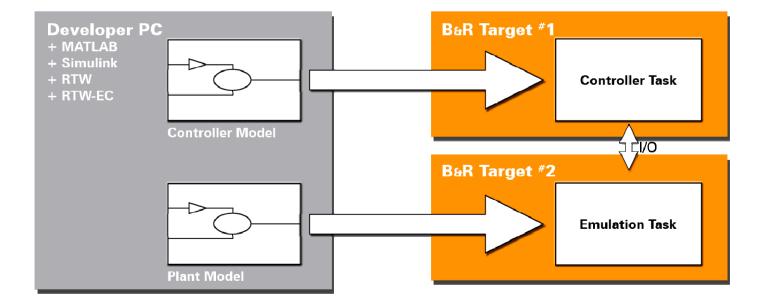
- Fast and flexible implementation of sophisticated models
- Economy of time and costs
- Avoidance of coding errors



### Hardware-in-the-Loop

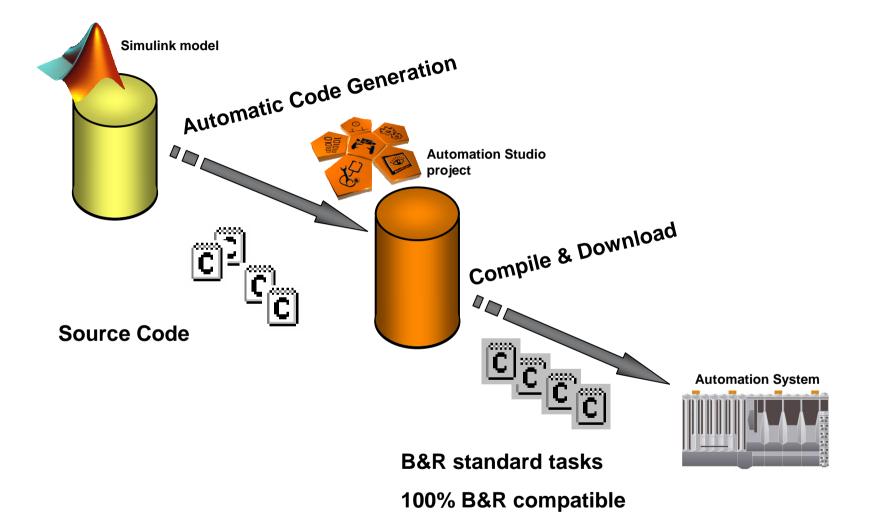


- Riskless testing
- Emulation of critical plant components
- Significant results



### Integration & Workflow





## **B&R** Toolbox for Simulink



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B&R OUT

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# Debugging



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- Automation Studio
  - Watch
  - Trace
  - Profiler

#### MATLAB/Simulink

- Workspace
- Plots
- Data analysis

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Workspace

▼ Stack: Base ▼

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## Requirements

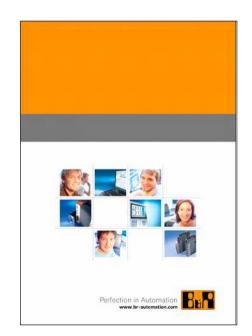


- B&R Automation Studio 3
- B&R Automation Runtime system
  - SG4 target system
- MATLAB Release 2007b or higher
  - MATLAB<sup>®</sup>
  - Simulink<sup>®</sup>
  - Real-Time Workshop<sup>®</sup>
  - Real-Time Workshop<sup>®</sup> Embedded Coder
  - Stateflow<sup>®</sup> (optional)
  - Stateflow<sup>®</sup> Coder (optional)



### **Product support**

- Training module TM140
  - B&R Automation Studio Target for Simulink
- Integral component of Automation Studio 3
  - Easy installation in MATLAB
  - No additional costs concerning Automation Studio
- Simple examples
  - Documentation of B&R block set for Simulink
  - Tutorial
  - Further application examples





## Your worldwide automation partner



