EICASLAB™ DEMO

The Professional Software Suite
for Automatic Control Design and Forecasting

Blinkduino demo

Welcome to Innovation

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EICAS Automazione S.p.A.

excellence and passion
in automatic control design

Summary

Slide contents:

- Overview

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- ACG for target

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  – ACG for default blinking

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Overview

Blinkduino =

blinking an Ar**duino**-compatible board

- Focus on the **Automatic Code Generation (ACG) for external target**

- **Real-time scheduling** support for external target

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Minimum requirements (PC)

This demo is available for both **Windows** and **Linux** operating systems and needs an AVR-based HW board:

- Dual core CPU

- 2 GB of RAM and 1 GB of disk space

- Windows or GNU/Linux operative system

- AVR toolchain (WinAVR/AVR GCC)

- USB-to-serial converter to program the AVR micro

- an Arduino/Genuino board with ATmega328 microcontroller on it

Target operative mode

This demo is dedicated to the Target operative mode: the operative mode of EICASLAB supporting the transfer of the algorithms from the PC to the hardware target dedicated to control the real plant.
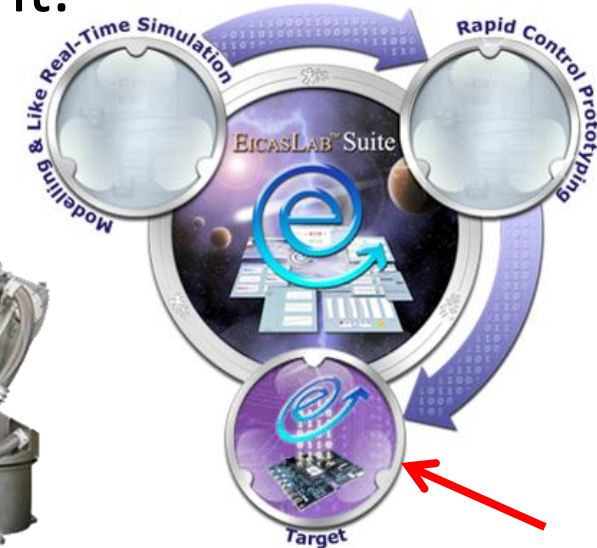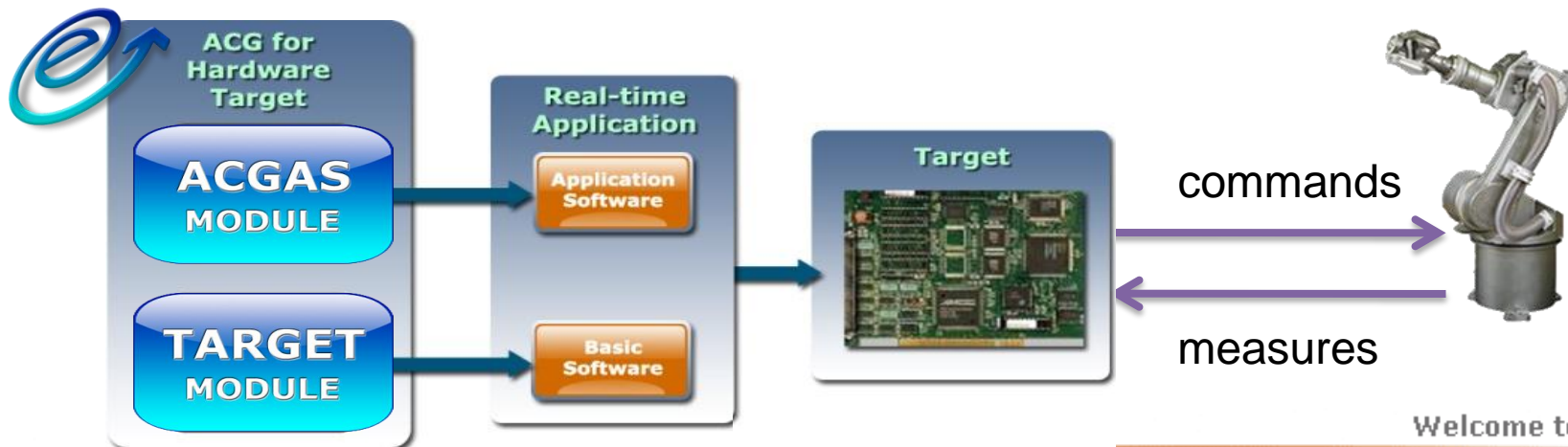

Target

commands

measures

Plant

ACG for target

EICASLAB simplifies the porting of the real-time control program to the external device with the **Automatic Code Generation (ACG)** feature.

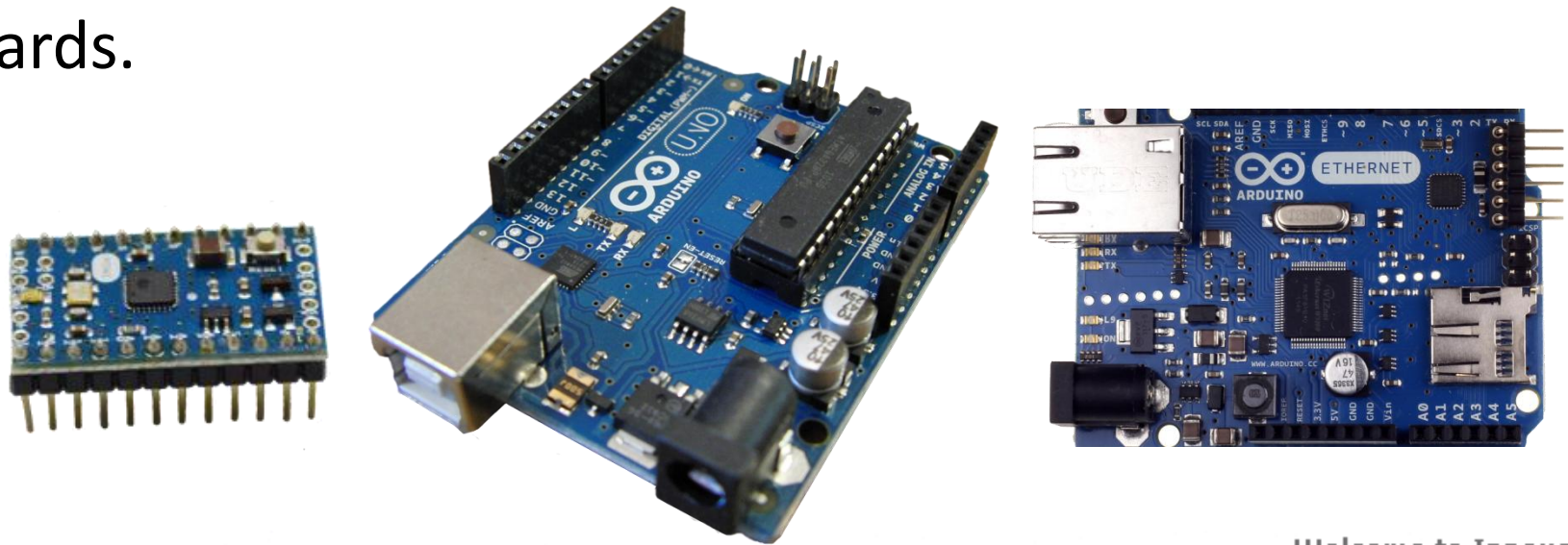The Basic Software is the _architecture-dependent_ code generated by ACG routines of EICASLAB.

EICASLAB Target Modules

Each EICASLAB Target Module provides the ACG support for a family (e.g. a family of microcontroller) of target types (boards). The Blinkduino demo is based on the EICASLAB Target Module for Arduino-compatible boards.
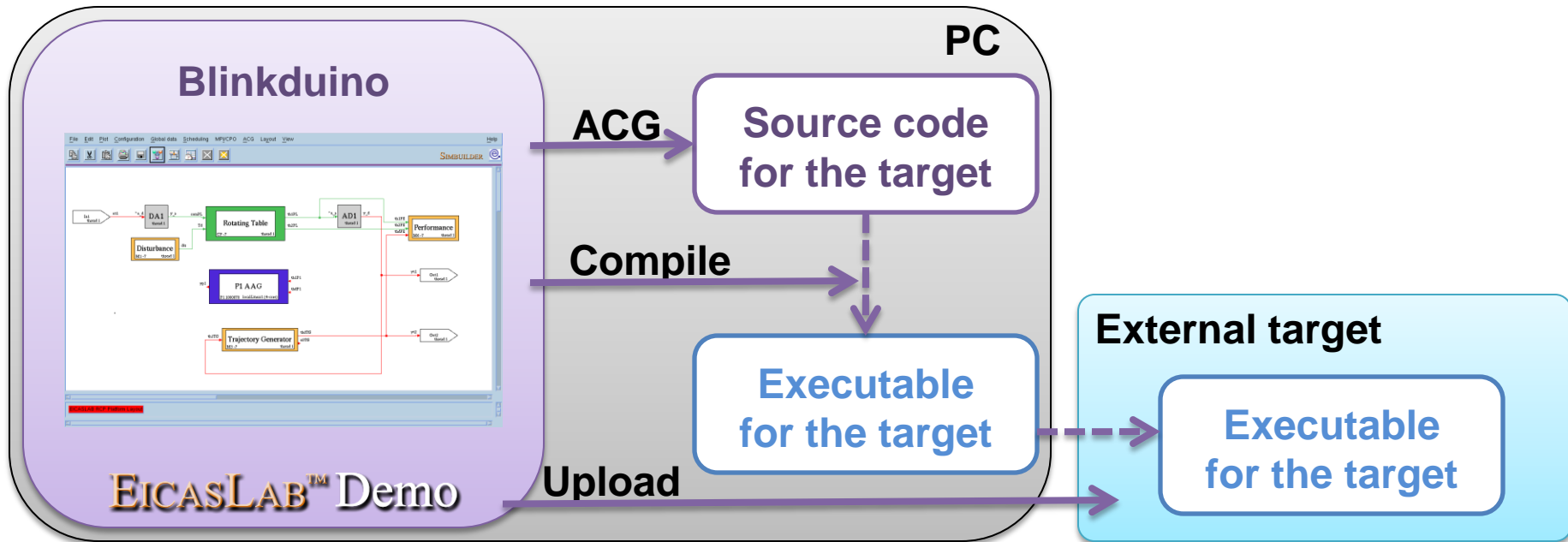
ACG for target

The ACG routines automate code generation, cross-compilation and upload process to the external board.

ACG for default blinking
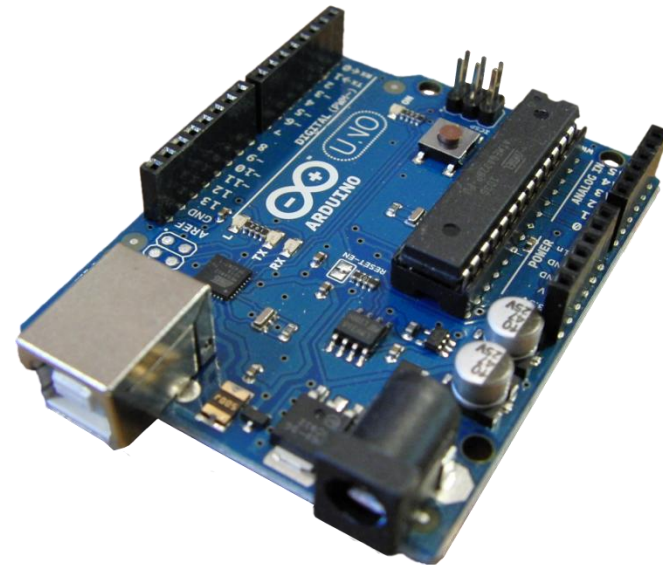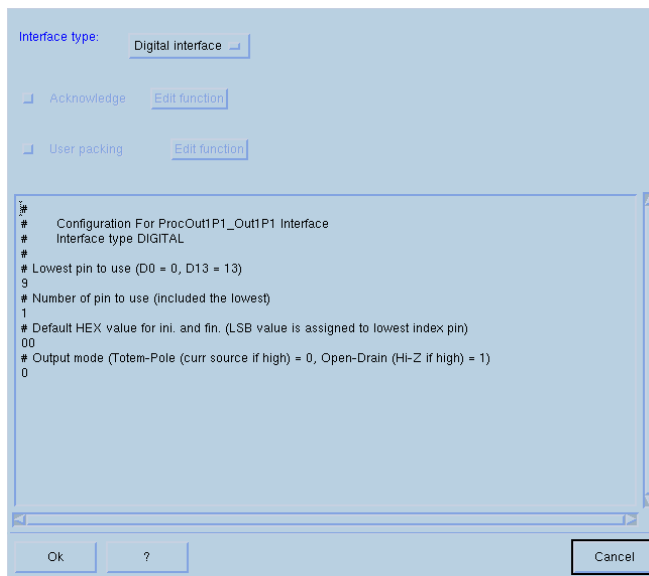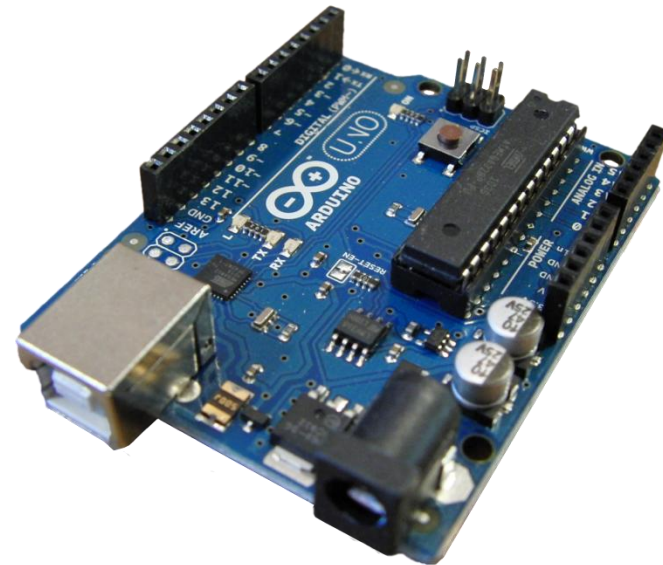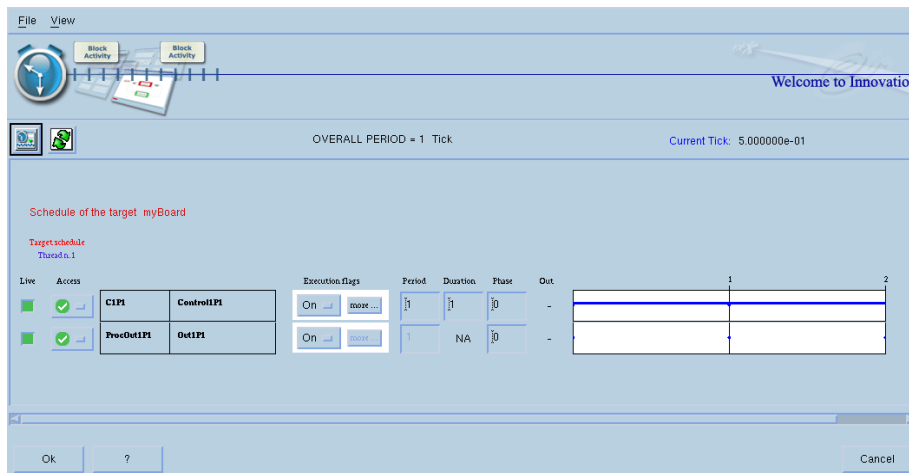
The default parameters of the Blinkduino project are suited for a LED which is connected to the pin n. 13 of the board (Uno built-in LED) and blinks with a toggle time of about half second.

ACG for user blinking

The user can edit the Tick time in the Scheduling window to vary the blinking period and then repeat the ACG to run the modified version on the board.

Further information

About this demo:

- Blinkduino demo Webinar

- Blinkduino User Manual

About EICASLAB:

- EICASLAB User Manual

- Other EICASLAB Webinars

The demo installer is downloadable from EICASLAB website (www.eicaslab.com)

For more info,
please contact:
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