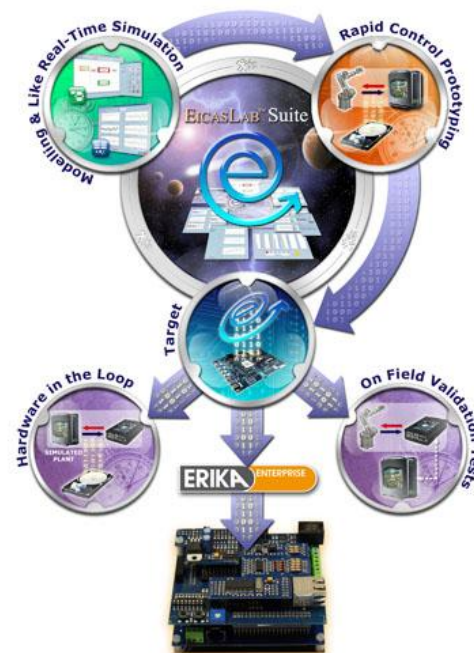




EICASLAB™

Automatic Control Design of the Amazing Ball with the EICASLAB suite



Webinar n.1 EICASLAB FLEX module and Amazing Ball description

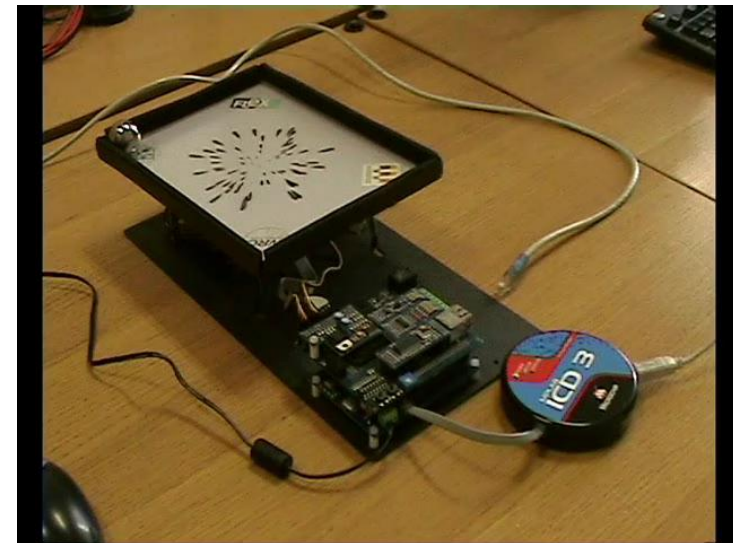


Welcome to Innovation



EICASLAB FLEX module and Amazing Ball description

- What is EICASLAB?
- EICASLAB control design operative modes
- New add-on: EICASLAB FLEX module
- A practical use case:
the **EVIDENCE Amazing Ball**



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What is EICASLAB™ ?

EICASLAB is the professional software suite for automatic control design and forecasting representing an innovative approach to the design of automatic controls.

EICASLAB supports the automation of industrial processes through powerful tools for modelling plants, designing and testing embedded control system architectures.



EICASLAB assists the developer in all the phases of the control design process: from system concept to generation of the code to be transferred in the final target.

**SYSTEM
CONCEPT**

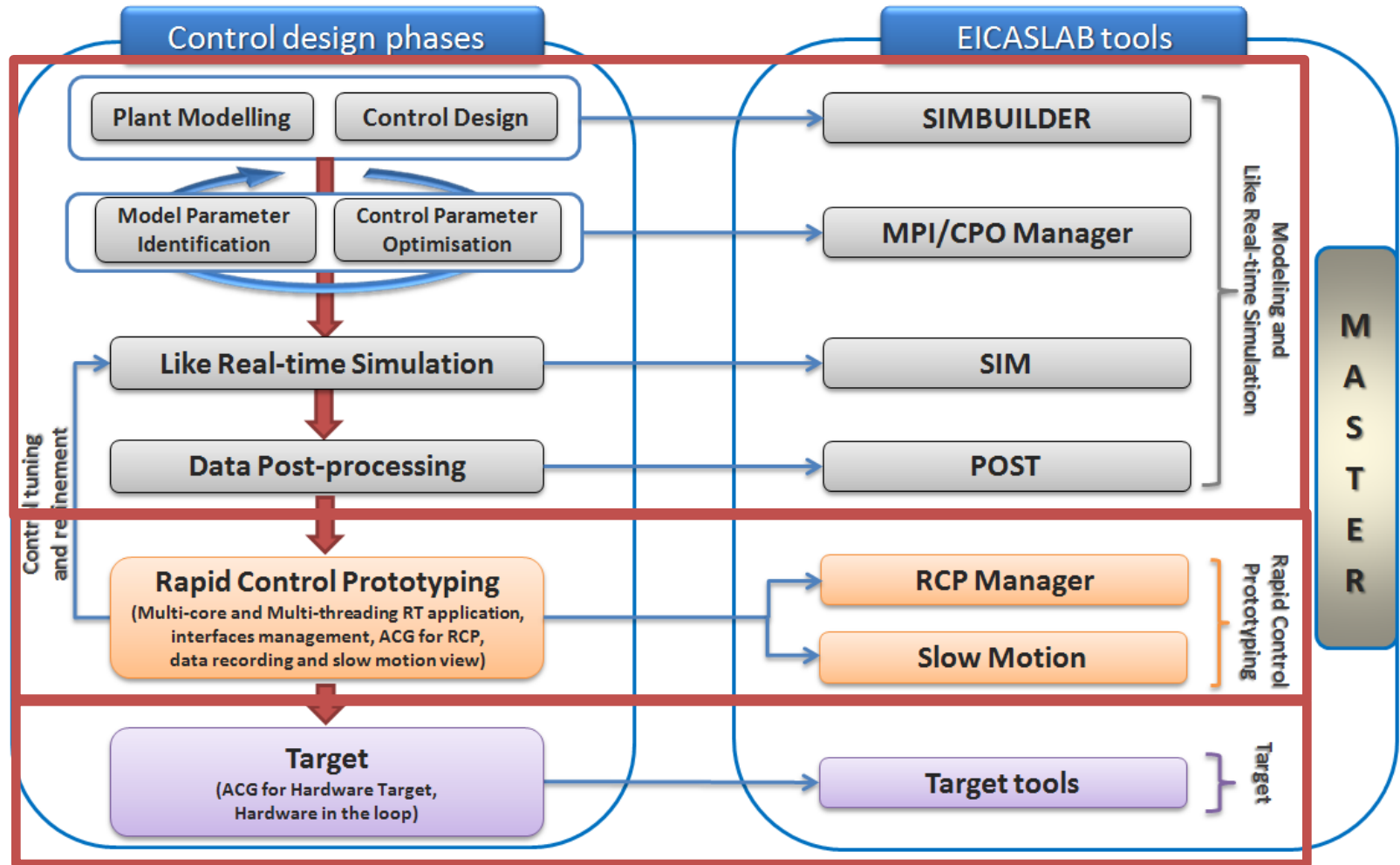


**CODE GENERATION FOR
THE FINAL TARGET**

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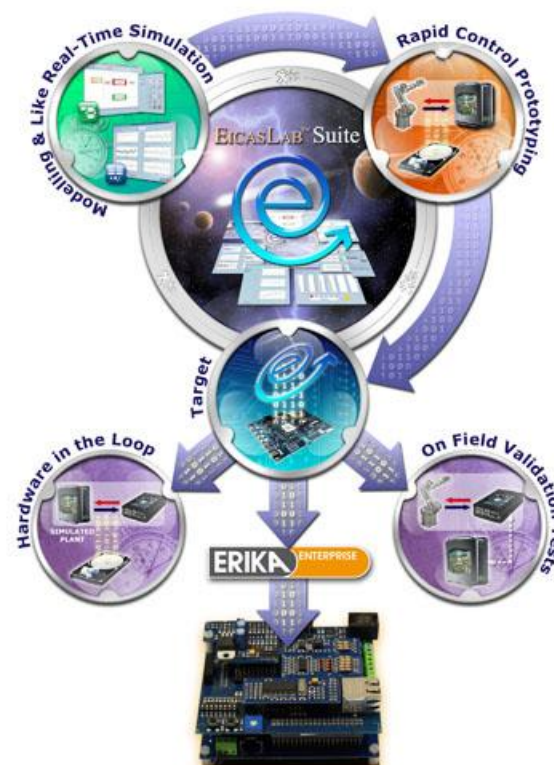
Design process and operative modes





New EICASLAB™ FLEX module

- The **FLEX module** is an **add-on** for **EICASLAB** suite that allows the developer to design, directly into EICASLAB, applications for FLEX boards equipped with the ERIKA enterprise kernel.
- Thanks to the new FLEX module available in the EICASLAB software suite, it is now possible to automatically generate applications running on single and multi-core embedded systems equipped with the ERIKA enterprise real-time kernel.
- The EICASLAB generated code exploits the ERIKA enterprise kernel features and it is ready to be compiled with the EVIDENCE RT-Druid tool.



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EICASLAB™ Use case: *EVIDENCE Amazing ball*

The **EVIDENCE** Amazing ball platform has been selected as use case for showing the functionality of the new EICASLAB FLEX module.



MAIN COMPONENTS

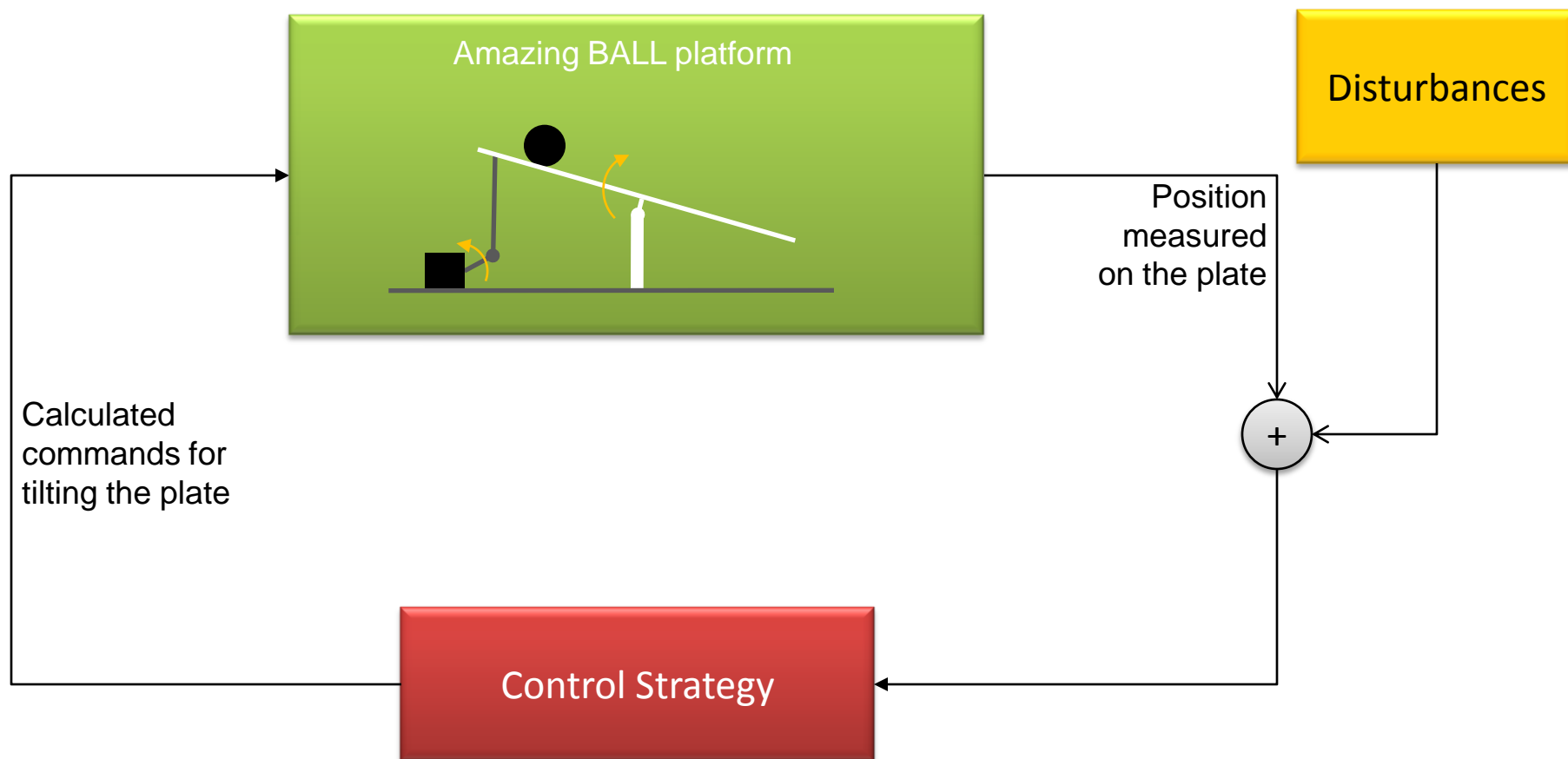
- Steel plate pivoted on a central joint;
- Metal ball free to move on the plate;
- High resolution touch panel;
- Two servos that assure two DOF;
- FLEX DEMO2 board equipped with Microchip dsPIC®33F microcontroller and Erika Enterprise Kernel.

OBJECTIVE: to show how it is possible to develop, in EICASLAB, the control strategy for the EVIDENCE Amazing ball platform.

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EICASLAB™ Use case: *EVIDENCE Amazing ball*

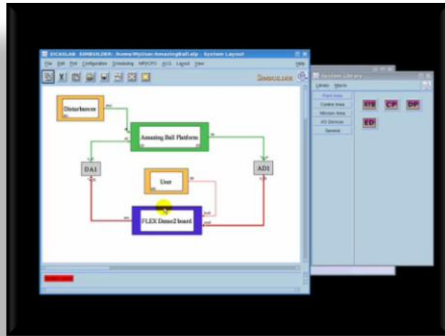


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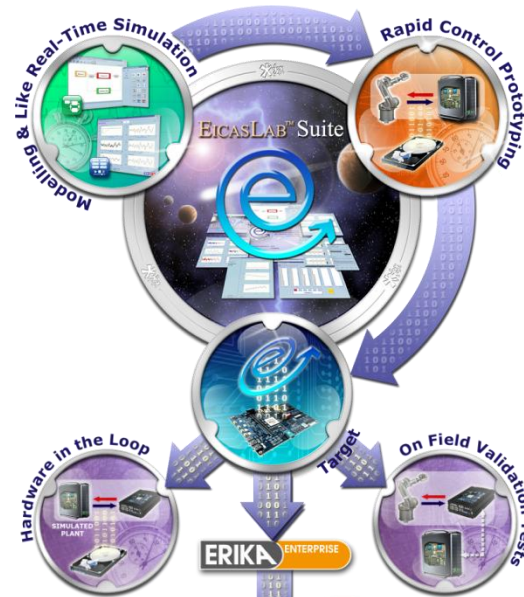


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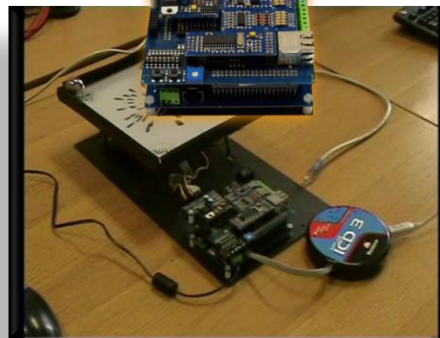
Operative modes applied at the use case



Modelling and Like Real-time simulation



Rapid Control Prototyping



Target

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for Automatic Control Design
and Forecasting*



To be continued!

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