

THE NEW REAL TIME CONTROL SUITE

Orchestra Control Engine is a suite of software components for the design, development and realization of real time control applications, developed by Sintesi in collaboration with some of the most important international industrial companies in the field of robotics and production systems of production, in partnership with the National Research Council.

Orchestra is a product promoted by the knowledge of needs and problems in the industrial field, yet to be resolved, combined with an elevated know-how in the field of the ICT. This allows it to overcome the limits of the traditional control solutions, and to increase the performances of control systems.

The new real time control suite is intended for control producers, machine manufacturers and systems integrators that want to develop performing and reliable solutions incorporating their own know-how of process and Motion Control in a sure and reserved way.

INNOVATION

Orchestra Control Engine is a highly customizable and flexible tool, capable of offering open and extendible solutions, as well as solutions for a simple and fast implementation.

In particular, Orchestra is innovative because it is:

Open, since it is based on an open source framework that allows to interface with external and not pre-defined entities in easier way.

Modular, since it gives the possibility to reuse already developed algorithms by dividing them in different functional units, as well as to modify arbitrarily the control scheme without any imposed limit;

Distributed, since it allows to run the software on different and remote hardware resources far from each other until several hundred meters;

Scalable, since it makes possible to solve problems of very different complexity by means of one single tool choosing the suitable hardware in terms of cost and performance for a particular application (e.g.: embedded low-cost or multi-core ultra-performing solutions);

Reconfigurable, since it allows to modify the system parameters both offline and at runtime, in order to quickly change the system behaviour.

THE COMMUNITY

The new suite can be used as an application of control not only in the industrial sector, but also in the academic one. For this reason the website www.orchestracontrol.com wants to be a bridge between the industrial and the academic world, so allowing its actors to converse, confront and develop an common intellectual capital. Orchestra Community sets a synergic exchange between research and industry among its objectives, so concretizing the philosophy animating Orchestra Control Engine: the Open Innovation, meant as the creation of innovation thanks to the integration of the Community users' contributions.

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