MESAP
Mechatronics and Systems for Advanced Production

projects

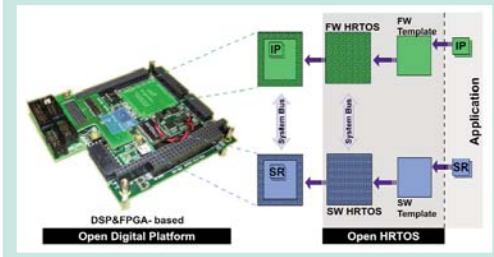
MEchatronics and Systems for Advanced Production Innovation Cluster

FAROS

Budget: 1,9 MEuro
From 2010 to 2012

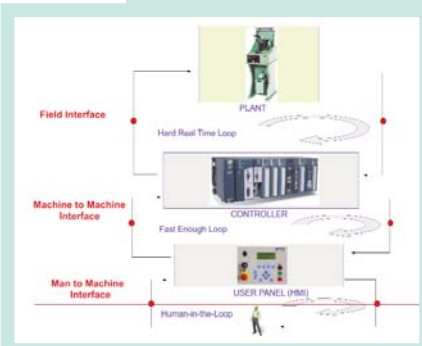
FRAMEWORK AUTOMATION REAL-TIME OPEN SOURCE

The final goal of the Framework is to realize an integrated open and expandible Hw/Sw mechatronic environment, able to cover different industrial needs, from rapid prototyping to testing.
The Framework is based on Open Source Hardware and Software modules and industrial standards inside a web 2.0 environment (forum, doc, revision control, download, mailing list, wiki,….) and must cover the most important design needs for mechatronics and advanced production systems (as motion control and PLC programming, expandible to production management).



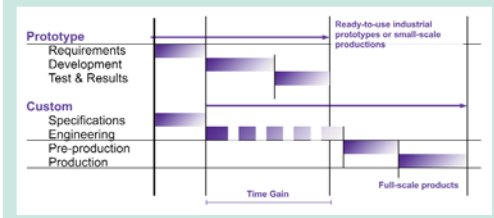
TECHNOLOGIES

Key point of the whole project is the OPEN SOURCE concept, where all the used technologies are (and will be) free reachable on the web.
An example is the Operating System. For all the software applications to be developed the OS will be LINUX extended and integrated for real-time usage of ARM9, DSP and FPGA devices. The OPEN SOURCE concept will also be enlarged to the hardware, where all the schematics of the developed boards will be free available.
Part of the project is also the design, development and prototyping of a basic set of specifications to interface application sensors to be connected to the Framework.
The cooperation of Research institutes, like Politecnico di Torino, ISMB, INRIM, CSP, together with innovation oriented local SMEs, will guarantee a final product on the leading edge of the new technologies, but well addressed to the real needs of the market.



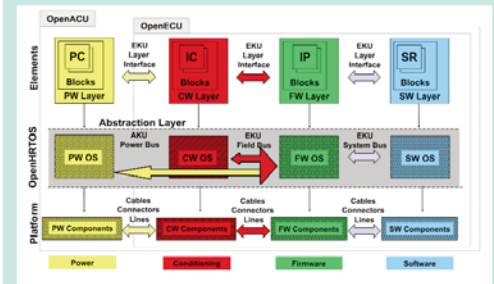
APPLICATIONS

Being a framework for rapid prototyping / low volumes applications, project's result will be applicable to almost all the areas of industrial automation. The application's target are still in evaluation and will cover different fields from industrial automation to automotive.



INDUSTRIAL EXPLOITATION

The involved companies, each one for its specific field of application, are looking forward to use the final product for their internal needs (basically for rapid prototyping) and future products. In particular, the Framework is perfectly suited for the cooperative development of new mechatronic products within a known and recognized legal environment, e.g. those supported by the OSI (Open Source Initiative) licenses, for the subsequent commercial exploitation.



PARTNERS

Prima Electro – electronics and laser technologies
actua – Actuation and Control Technologies
AMET
EULEGO – "Affordable safety"
NEOHM componenti
mect
TESEO
INRiM – Istituto Nazionale di Ricerca Metrologica
CSP – innovazione nelle ICT
ISMB – Istituto Superiore Mario Boella
POLITECNICO DI TORINO

SYNERGY FOR SUCCESS

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