

C ontrol system based on a
H ighly
A bstracted and
O pen
S tructure

!CHΛOS

WP3 15/12/2015

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General objectives achieved on beta release

- **Multiple architectures/OS releases supported**
 - ✓ Portability
 - ✓ Reliability

- **Multiple access channels supported (native/rest)**
 - ✓ Versatility
 - ✓ Usability
 - ✓ Portability

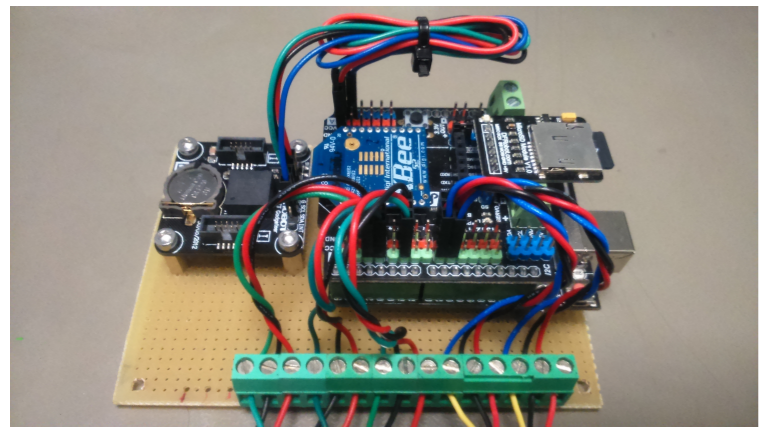
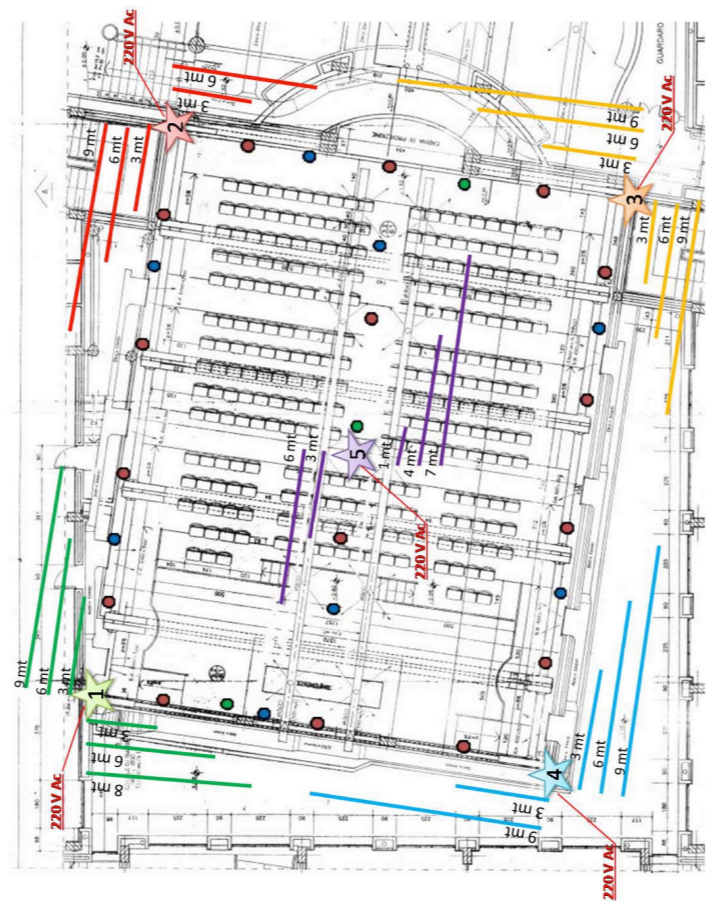
- **Multiple application frameworks supported (labVIEW/Matlab)**
 - ✓ Usability
 - ✓ Reliability

Accelerator Use Case

Functionalities (alcuni esempi)	Milestones released with the alpha version at 31 July 2015	Deliverable foreseen with the beta version the 31 December 2015	Foreseen for the first release end of 31 December 2016
Power Supply abstraction and Driver Ocem [power supply]	yes	yes	yes
Serial abstraction and driver	yes	Yes	Yes
Modbus abstraction and driver	yes	Yes	Yes
Vme abstraction and driver	yes	Yes	Yes
Chaos independent debug layer	yes	Yes	Yes
Sensor abstraction	yes	Yes	Yes
zigbee collector driver			
Sis3800 driver(TDC)	yes	Yes	Yes
Hiadc (ADC)	yes	Yes	Yes
Caen 513 (PIO)	yes	Yes	Yes
Caen 965 (QDC)	yes	Yes	Yes
Caen 792 (QDC)	yes	Yes	Yes
Libera Brilliance (ADC) from BPM	yes	Yes	Yes
Wall current monitor driver	yes	Yes	Yes
Other BTF diagnostic drivers (table, oscilloscope, ...)	no	Partially 50%	yes
Automatic build system	yes	Yes	Yes
Miscellaneous tools to maintain code	Partially 80%	yes	yes
Test engine	yes	Yes	Yes
CREST server to access CHAOS resources via CREST	yes	Yes	Yes
CREST client, small portable C library to interface bare bone targets with CHAOS via REST	yes	Yes	Yes
Javascript client engine to build WEB CHAOS interfaces	yes	Yes	Yes
LabVIEW compatibility layer (chaos native, chaos CREST)	yes	yes	yes
Support for ARMV7V architectures	yes	Yes	Yes
Support for ARMV5 architectures	yes	Yes	Yes
Support for CRIO architectures	Partially 50%	Yes	Yes

ESCO USE Case

Functionalities (alcuni esempi)	Milestones released with the alpha version at 31 July 2015	Deliverable foreseen with the beta version the 31 December 2015	Foreseen for the first release end of 31 December 2016
Sensor abstraction	yes	Yes	Yes
zigbee collector driver	yes	Yes	Yes
UTA drivers	Partial 50%	Yes?	Yes?
ClimaVeneta driver	Partial 50%	Yes	Yes
Full GUI	Partial 50%	Yes	Yes
Installation CHAOS CONTROL BOX	NO	Yes?	Yes?
Installation Touschek sensors	Partial 50%	Yes?	Yes?



THANKS TO THIS PROJECT
THE FRAMEWORK IS MUCH MORE ROBUST
IS NOW READY TO GO INTO PRODUCTION NEXT
YEAR @ LNF INFRASTRUCTURES



thanks you