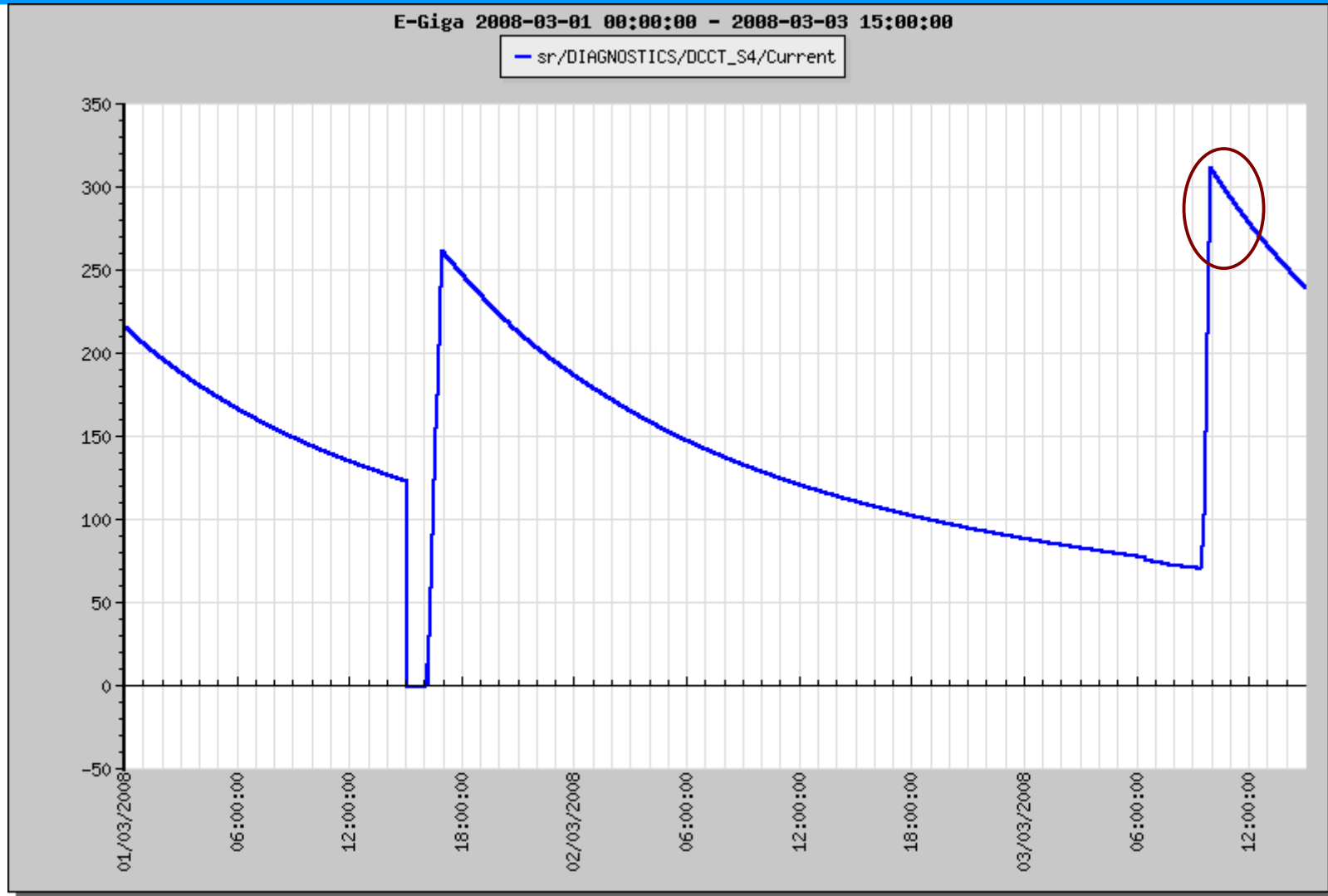


- status of booster
- status of booster control system
- Tango for the beamline controls
- the not so nice things
- in the next months



first extracted beam at 0.6 GeV on Sept. 12th 2008



beam to the users on March 3rd 2008

- on time (well... 3 hours late)
- on budget



- *full specs not yet reached...*
- preliminary tests of top-up operations



Booster inauguration
by the
President
of the
Republic

- 100% Tango
- Tango 5.5.2 and omniORB-4.0.7
- Linux 2.6 on i386 for servers and consoles
- Linux 2.4 on PPC for device servers on VME
- no major problems or bugs due to Tango
 - we experienced some NFS problems, now solved

Tango database for the booster (SR) manages:

- 837 (806) exported devices
- 221 (278) servers
- 130 (52) classes

- HDB with E-Giga web interface
 - highly appreciated by operators and users
- Snapshot DB
 - vital for machine operations
 - we provide a simplified Qt-based operator interface
- *see G. Strangolino presentation*

some highlights

Save Restore <@dino>

File View Tools

Available contexts:

- RF
- Booster timing
- Extraction - keb, seb e bumper
- (pre injector) !SAVE SU pre-injector (reviewed)!
- P
- linetrigger
- Booster-power_supply dynamic+static**
- BTS-power_supply
- BTS
- PTB
- B

Snapshots for context 43:

ID	Comment	Time	Last Rest
345	test nuovo co...	2008-02-01 15...	Fri Feb 1
347	acrampa2gev0...	2008-02-02 19...	Never res
348	acrampa2gev0...	2008-02-02 19...	Sun Feb 3
350	ottimizzazione-1	2008-02-03 18...	Never res
351	ottimizzazione-...	2008-02-03 18...	Mon Feb 4
352	ottimizzazione-...	2008-02-04 14...	Wed Feb 6
353	esperimento_a...	2008-02-04 22...	Tue Feb 5
364	extraction2GeV	2008-02-07 00...	Fri Feb 8
374	AC-2mAestarsi...	2008-02-09 20...	Mon Mar 2
386	2GeV-estrazion...	2008-02-13 06...	Tue Mar 4

Information about the context 43:

Device	Attribute
b/power_supply/psb_b	Current
b/power_supply/psb_b	RampWa...
b/power_supply/psch_b11.1	ScalingF...
b/power_supply/psch_b11.1	RampWa...
b/power_supply/psch_b11.1	Current
b/power_supply/psch_b17.1	Current
b/power_supply/psch_b17.1	RampWa...
b/power_supply/psch_b17.1	ScalingF...
b/power_supply/psch_b19.1	ScalingF...
b/power_supply/psch_b19.1	RampWa...
b/power_supply/psch_b19.1	Current
b/power_supply/psch_b21.1	Current
b/power_supply/psch_b21.1	RampWa...
b/power_supply/psch_b21.1	ScalingF...
b/power_supply/psch_b23.1	RampWa...
b/power_supply/psch_b23.1	ScalingF...
b/power_supply/psch_b23.1	Current
b/power_supply/psch_b25.1	ScalingF...
b/power_supply/psch_b25.1	RampWa...
b/power_supply/psch_b25.1	Current
b/power_supply/psch_b3.1	RampWa...
b/power_supply/psch_b3.1	ScalingF...
b/power_supply/psch_b3.1	Current
b/power_supply/psch_b5.1	Current
b/power_supply/psch_b5.1	ScalingF...
b/power_supply/psch_b5.1	RampWa...
b/power_supply/psch_b7.1	ScalingF...
b/power_supply/psch_b7.1	Current

Save Search snap: Find Restore Quit

- Abstract Devices:

all Power Supplies derived from "PowerSupply"

- *generic tool* to handle blocks of power supplies

- easy to change model of actual power supply on the field with no impact on applications (e.g. HDB, snapshot, machine physics programs, ...)

some highlights

Generic Tool - ptb/power_supply/psq* <@dino>

Monitoring devices under "ptb/power_supply/psq*"

	State	Current	
psq_ptb1.1	ON	41.000 ...	Set
psq_ptb1.2	ON	61.000 ...	Set
psq_ptb1.3	ON	86.000 ...	Set
psq_ptb1.4	ON	38.000 ...	Set
psq_ptb1.5	ON	5.000 ...	Set
psq_ptb1.6	ON	98.000 ...	Set
psq_ptb1.7	ON	74.000 ...	Set
psq_ptb1.8	ON	58.000 ...	Set

On
Standby
Off
StartCycling
Reset

Show Logs

- Tango Alarms

- see presentation by L. Pivetta and G. Scalamera
- working for the booster
- badly needed by operators
- we are already testing Tango2Rpc bridge device to use Tango alarms also for the legacy control system of the storage ring

- several PLCs interfaced via Tango devices
 - machine interlock
 - pre-injector interlock
 - acces- control system
- heavy initial development effort
- little effort to adapt to evolution of requiremenst and specifications
- long term maintenance

Some highlights

CONTROLLO ACCESSI BOOSTER <@dino>

ACCESSO A0 (preiniettore): VIETATO sirena

PLC ON

PANNELLO ESTERNO

PANNELLO INTERNO

CONSENSI:

BADGE

TESTIMONE

SERRATURA

Lista Presenti

Apertura

Ripristino

Richiesta Ronda

Nome:

CONTROLLO

Sala Controllo Anello

STATO BOOSTER

ABILITATO

GUN ON

RF_sezioni_prein. ON

RF_cavita_booster ON

BOOSTER SHUTDOWN

BOOSTER RF-SERVICE

BOOSTER OFF

BOOSTER ON LOC

BOOSTER ON INJ-SR

BOOSTER ON TOP-UP

TOP-UP TEST

PIANTA BOOSTER

ACCESSO A1 (booster): VIETATO sirena

PLC ON

PANNELLO ESTERNO

PANNELLO INTERNO

CONSENSI:

BADGE

TESTIMONE

SERRATURA

Lista Presenti

Apertura

Ripristino

Richiesta Ronda

Nome:

PORTE, RONDE E PULSANTI EMERGENZA

A0 A1

Tunnel Booster

RONDA OK

Chiostrina Booster

RONDA OK

Booster lato dx.

RONDA OK

Booster lato sx.

RONDA OK

Tetto Booster

RONDA OK

BST BOOSTER

BST_B14.1

abilitato

Aprire APERTO

Chiudere CHIUSO

BST BOOSTER-TO-STORAGE-RING TL

BST_BTS1.1

disabilitato

Aprire APERTO

Chiudere CHIUSO

BST_BTS1.2

disabilitato

Aprire APERTO

Chiudere CHIUSO

BST_BTS1.3

disabilitato

Aprire APERTO

Chiudere CHIUSO

BST_BTS2.1

APERTO

CHIUSO

BST LINEE

BST linee

abilitato

SCRAPERS

Scrapers

TOP-UP

0%

ERRORE TOP-UP

Ripristino

MOSTRA / NASCONDI LISTA ALLARMI

CAMBIA CONTROLLO PSA / SALA CONTROLLO

MOSTRA NASCONDI LISTA PERSONALE ABILITATO

PLANIMETRIA BOOSTER PIANTA / TETTO

CONTROLLO HARDWARE

VERSIONE SOFTWARE

beamline XRD1: acquisition software is based on
Tango and Qt.

several device servers used e.g. :

XCS: bridge towards Beamline Control System

MCA8000A: Amptek Multy Channel Analyzer

NetPicoAmmeter: Elettra AH401 picoammeter

DataManager, FileUpload: UDT protocol data transfer

courtesy of Roberto Borghes – see XRD.odp

beamline MCX:

- photon beam position monitor motors controlled by LeoMotor Tango device.

beamline Sirmep:

Tango devices and control in advanced prototyping phase

the not so nice things

- development of some Tango devices outsourced to contractors.
- quality of the work depends heavily on:
 - contractor skills (and cost...)
 - specifications
 - reviews and acceptance tests
- in the end, we had to make a lot of improvements on those devices.

the not so nice things

- integration of laboratory instruments (scopes)
within the control system for one-of or temporary
measurments during testing and commissioning.
- typically with a very short time to provide a solution
 - scopes of wildly different models and capabilities

- merge of SR and booster control system
 - merge of 2 tango databases
 - upgrade of SR consoles to Ubuntu 7.10
- first developments for FERMI
 - devices for CCD cameras
 - devices for LabView based servers
 - control of photocathode gun prototype (parts of which are already deployed at MAX-Lab)

in the next days...

-
- publish on the Pink site the tools developed for booster:
 - Canone, E-Giga
 - Tango Devices
 - Tango Alarms
 - generictool, saverestore
 - Qt Tango widgets
 - ...