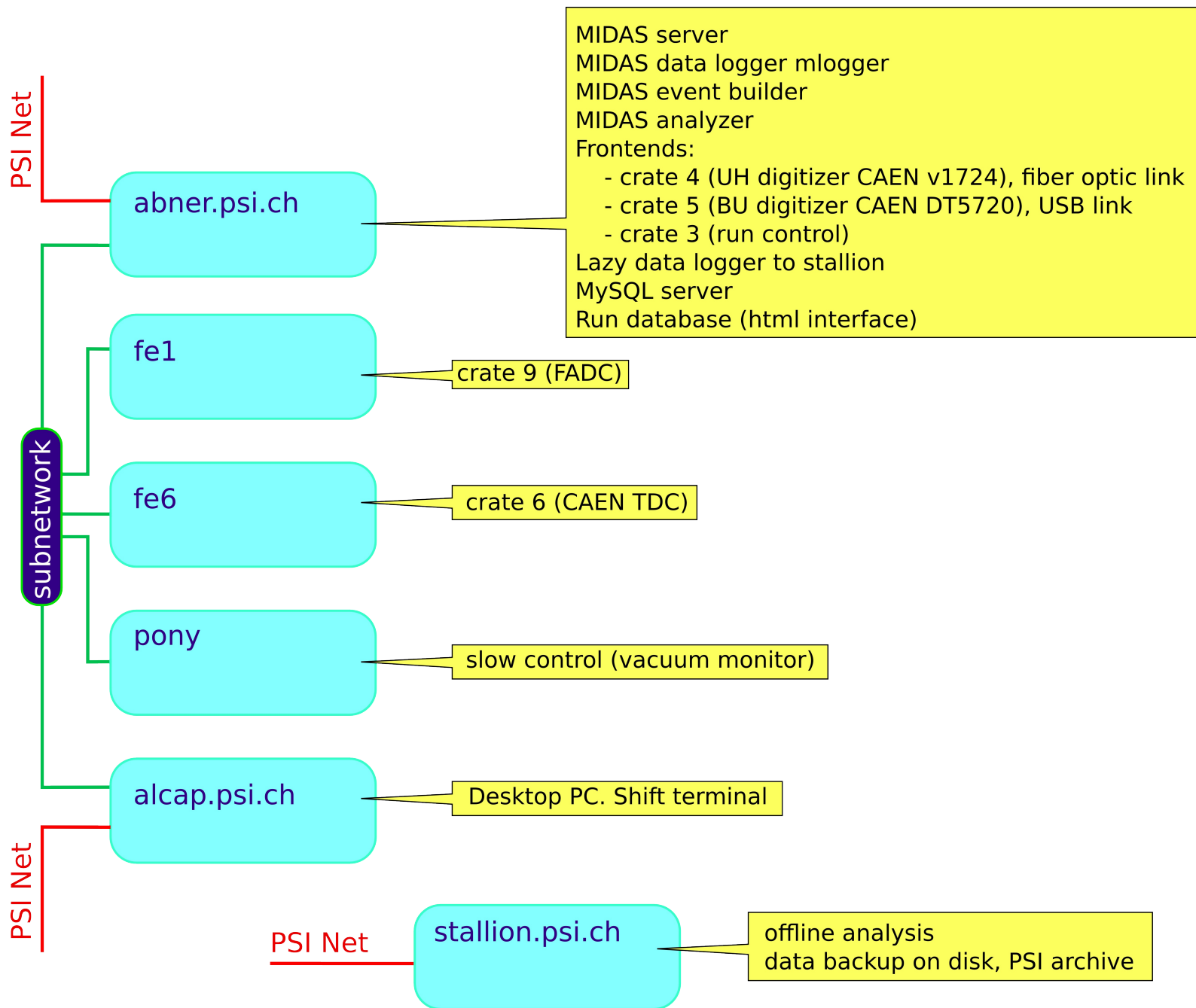


Data acquisition: setup, performance, lessons learned

V. Tishchenko



MIDAS experiment "AlCap" Sat Dec 14 21:15:14 2013 Refr:60

Start ODB CNAF Messages ELog Alarms Programs History Config Help

Alarm: Germanium must be filled

[Germanium alarm](#) [Germanium calibration](#) [DetectorBankMapFADC](#) [DetectorBankMapCAEN](#) [DetectorBankMapFADC_0x84](#)

Run #2401 Stopped Alarms: On Restart: Yes Data dir: /data/RunPSI2013/mid

Start: Sat Dec 14 20:59:02 2013 Stop: Sat Dec 14 21:04:47 2013

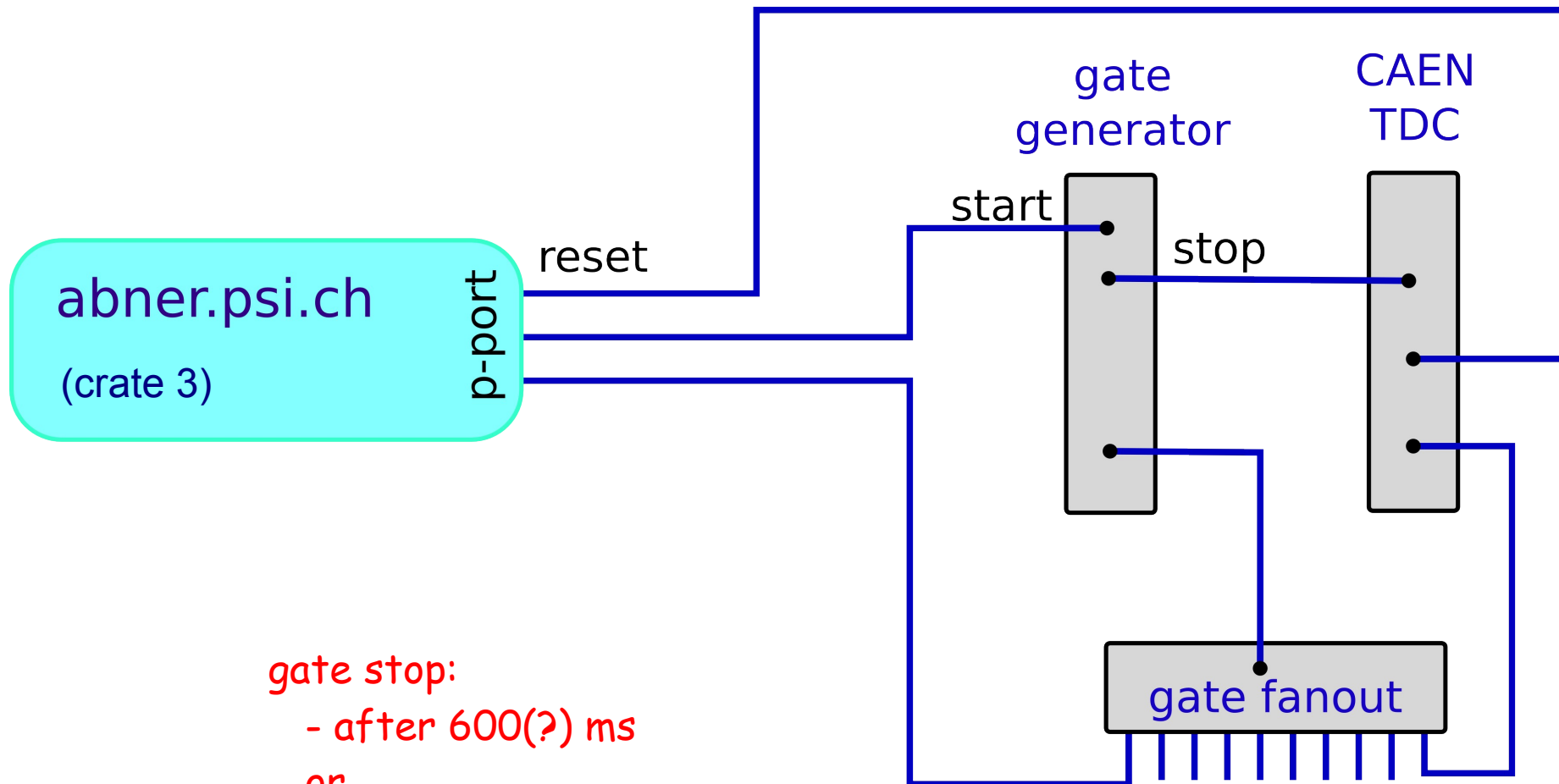
Equipment	FE Node	Events	Event rate [1/s]	Data rate [kB/s]	Analyzed
Crate 3	Crate 3@abner	2774	0.0	0.0	0.0%
Crate 9	(inactive)	2774	0.0	0.0	0.0%
EB	Ebuilder@abner	2774	0.0	0.0	0.0%
Crate 4	Crate 4@abner	2774	0.0	0.0	0.0%
Crate 5	Crate 5@abner	2774	0.0	0.0	0.0%
VacuumMonitor	VacuumMonitor@pony	970	0.0	0.1	0.0%
Crate 6	Crate 6@fe6	2774	0.0	0.0	0.0%
Germanium	(inactive)	0	0.0	0.0	0.0%
Beamline	(inactive)	1	0.0	0.0	0.0%

Channel	Active	Events	MB written	GB total
run02401.mid	Yes	3132	562.730	581.552

Lazy Destination	Progress	File Name	Speed [kb/s]	Total
stallion.psi.ch	100 %	run00019.mid	0.0	0.0 %

15:08 Lazy stallion [FTP: (cp:0.4s) run00019.mid 0.650MB file COPIED

mhttpd [abner]	Crate 3 [abner]	Crate 5 [abner]
Crate 4 [abner]	Crate 6 [fe6]	VacuumMonitor [pony]
Logger [abner]	Ebuilder [abner]	Lazy_stallion [abner]



gate stop:
- after 600(?) ms
or
- CAEN TDC almost full

Run6 Database

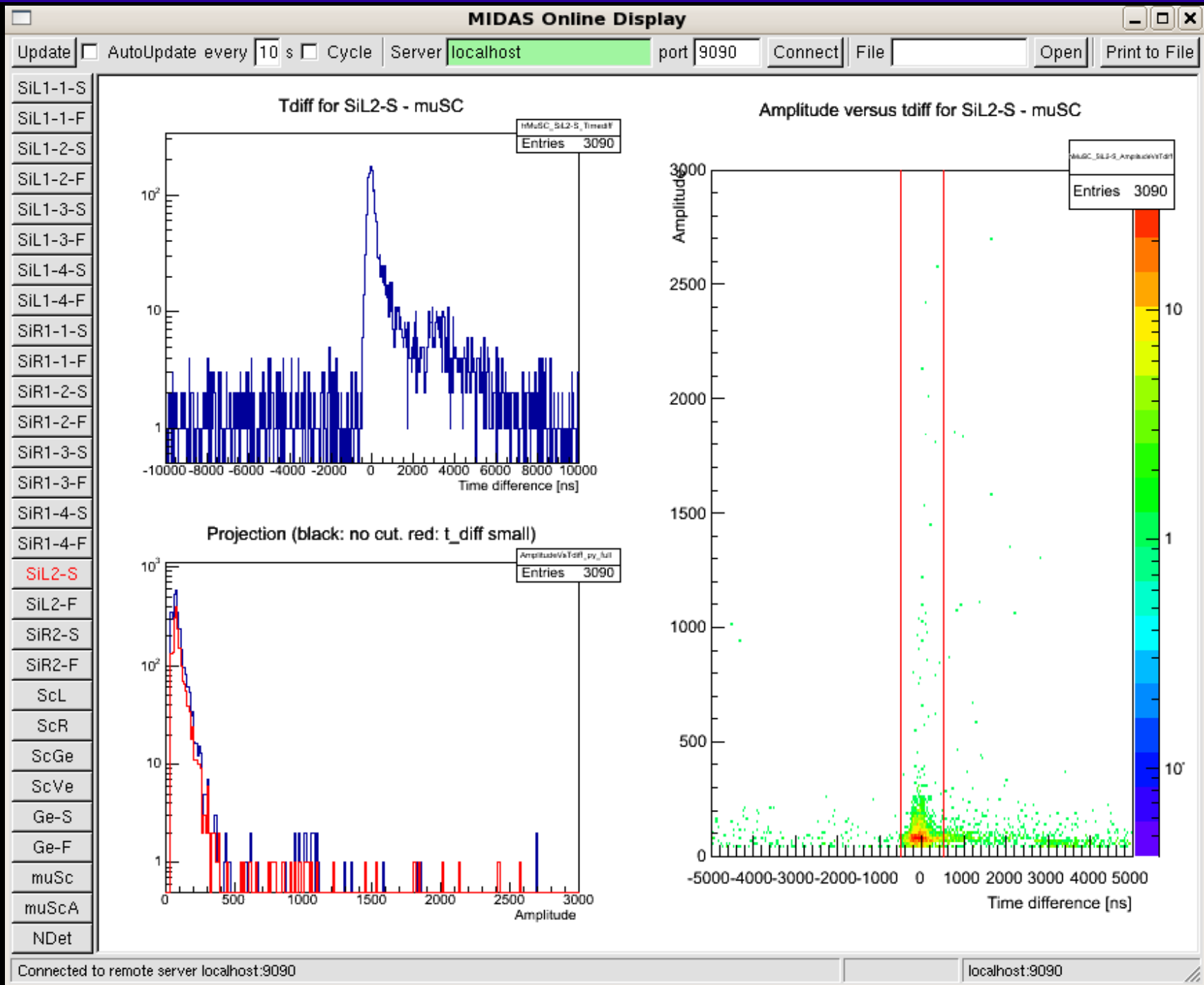
- [Overview](#)
- [Run Log](#)
 - [Last 20 runs](#)
 - [Last 100 runs](#)

AICap Run 2013 Log [Switch to editable mode](#)

Legend:

- H - "+" if file with online histograms exists
- Q - quality mark (Y - good, N - bad, T - test)
- Mu - polarity condition (mu+, mu-, off)

H	Q	Mu	Run	Date	Start	Blocks	Size, MB	Tape	Shift	Target	Comment
					End			Size	Beam mom.		
-	N	negativ	1643	Dec-07	03:44:44	0.00			VD DA PL AE	SiL	Si, pulser
								0	1.23		
-	N	negativ	1642	Dec-07	03:43:45	0.00			VD DA PL AE	SiL	Si, pulser
								0	1.23		
-	Y	mu-	1	Dec-05	23:32:39	1.00	0.00000	HD-001	MM	blank	database testing, fake run number 0
					23:32:39			0	1.02		
-	N	mu-	0	Dec-06	03:25:22	1.00	0.00000	HD-001	MM	blank	database testing, fake run number 1
					03:25:22			0	1.02		



bad

- DAQ crashes
- Human factor
- CAEN DT5720 Communication error
- FADCs power cycling
- Common trigger in CAEN digitizers

good

- Great team work
 - FADC FE: Nam
 - BU digitizer FE code: John
 - Slow control: Joe, John, Chen, Peter W.
 - DAQ general: Nam, Peter W, Volodya
 - Analyzer modules: everybody
 - Online display modules: everybody
- **We took data!**