

STATUS OF TAs AND EUDET TELESCOPE

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DESY



Another Queen in Hamburg

EUDET Extended SC Meeting
August 30th 2010
Hamburg

OVERVIEW TA 2010

		Full Costs for 4 periods (date: 15.02.2010)	Actual full costs (date:15.07.2010, TA2009 which have been accounted in 2010)	Total budget	Still to be spent	Rest after all TA-projects in 2010
20213	TA1 DESY Testbe	84,171.77	88,371.77	154,794.43	66,422.66	35,023.48
20214	TA2 Detector R&	60,740.96	74,300.96	100,400.00	26,099.04	-22,740.96

at 24.08.2010 still available: **12,282.50**

TA-plan for 2010

Participant number	Organisation short name	Short name of infrastructure	Installation		Operator country code	Month 49 to 60		
			Number	Short name		Min. number of access to be provided	Estimated number of users	Estimated number of projects
1	DESY	DESY-TB	1	DESY-TB	DE	15	15	6
1	DESY	DRD-INF	2	BTELE	(DE, FR, NL, CH)*	15	30	10
			3	TPC		5	15	5
			4	SI-TPC		8	9	3
			5	SI-STRIP		3	9	3
			6	CALO		2	6	2

- As of August 24th we still have 12282 EUR

CURRENT TAs

TA1

	People/Weeks	Estimated costs	Est.costs+User fees
TB-01(Goldstein, lowmass)	5/1	3,100.00 €	5,016.00 €
TB-02(Dauncey, SPIDer)	6/1	4,500.00 €	6,416.00 €
TB-03(Frulanni, Olympus)	5/2	3,570.00 €	7,402.00 €
TB-04(M.Idzik, W.Lohmann)	5/2	3,500.00 €	7,332.00 €
Total incl. 20% overheads		17,604.00 €	31,399.20 €

TA2

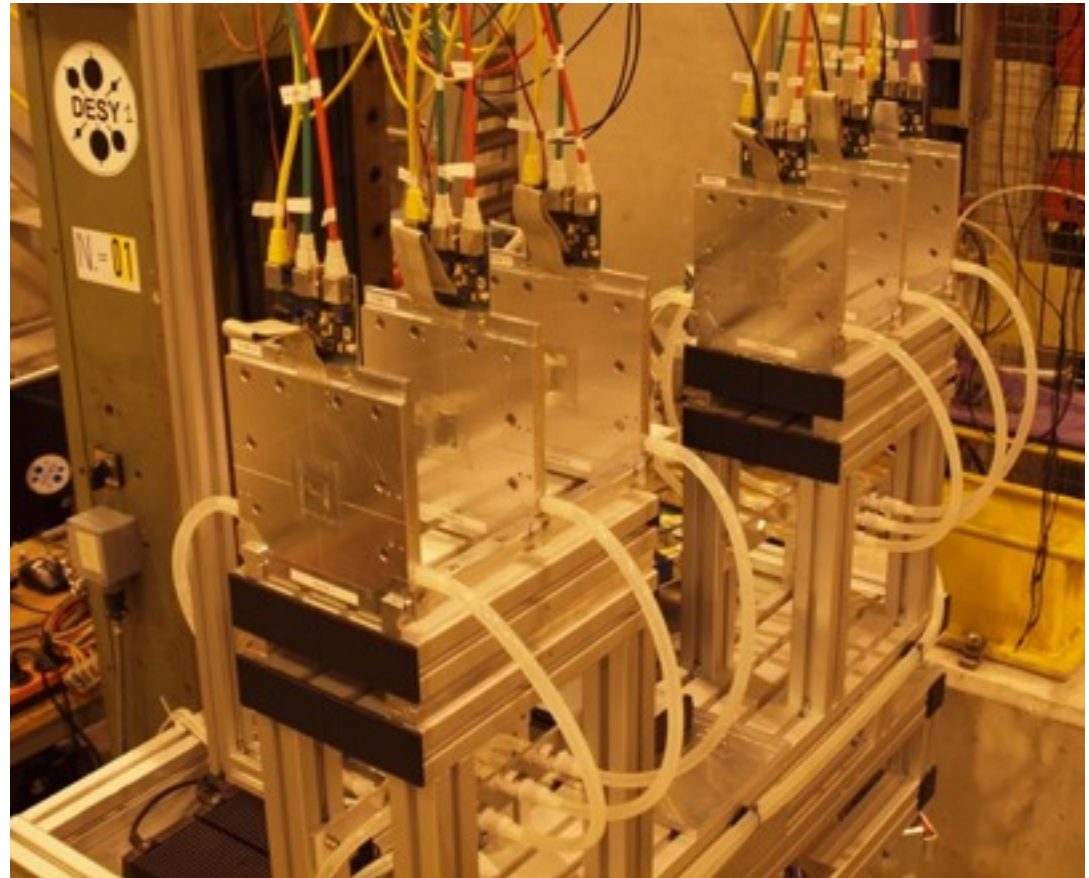
	People/Weeks	Estimated costs	Est.costs+User fees
CALO-01(Cvach, AHCAL)	4/2	3,250.00 €	3,250.00 €
TPC-02(Leif, GEM)	5/2	8,200.00 €	8,200.00 €
BTELE-02(Jaap, Fortis)	4/1	5,000.00 €	5,000.00 €
BTELE-01(Jaap, Vertex)	5/1	3,250.00 €	3,250.00 €
BTELE-03(Jens, Atlas PD)	6/3	7,200.00 €	7,200.00 €
BTELE-04(Thomas)	4/2	3,800.00 €	3,800.00 €
BTELE-05(Huegging, Atlas)	5/2	6,000.00 €	6,000.00 €
BTELE-06(Hiller, Atfa)	5/2	4,000.00 €	4,000.00 €
Total incl. 20% overheads		48,840.00 €	48,840.00 €

- Unfortunately are these all estimates, the administration is far behind; it is difficult to estimate how many more TA projects we can do
- We assume to have ~10kEUR (2-3 projects)

- BEAMTELE-2010-07 is in the cue (British MAPS group for SPS)
- Further TAs planned:
 - DEPFET
 - OLYMPUS
 - Any other ?

OVERVIEW JRA 1

- JRA1 -> no milestones and deliverables for 2010 (except final report)
- Almost continuous user business since spring 2010
- Telescope currently running at CERN
- ATLAS ALFA is using it for the next two weeks
- Move back to Hamburg end of November
- Bookings for 2011: ATLAS Pix, PLUME,
-



PREPARATION OF SEASON



Time for spring cleaning!

- Replaced old mechanics by the new version (see slides later)
- Labeled more clearly (cables and also planes)
- Strain relieve for all cables
- Replace cables by the old color coding cables red = data, yellow = JTAG green = clock (already done).
- Remote programmable power cable (IP address) (“remote control” for VME crate)
- Stress test
- Documentation (manual)
- Two-day tutorial with hand-on exercises covering the telescope running and the data analysis

EUDET-Memo-2010-04



EUDET Pixel Telescope Data Taking Manual - Updated Version for M26

EUDET JRA1 Group

July 28, 2010

Abstract

This manual is intended to help users to take data using the EUDET pixel telescope. You will find detailed explanation on how to power up the telescope, how to start the run control and pictures of important items. This newer version is for the final telescope using the Mimosa26 (system of 2010).

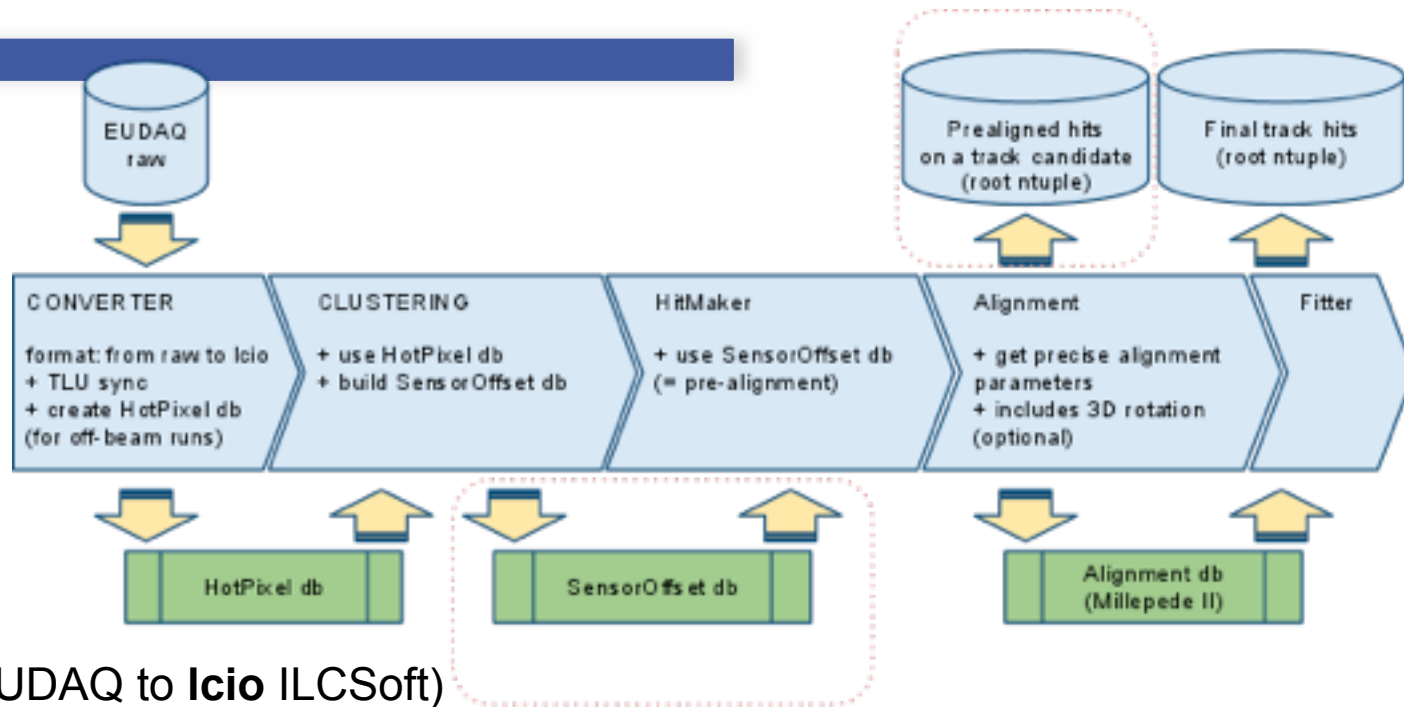


USERS 2010

Period	Date	H6A	H6B	Comment
1	10.05.-17.05		SILCRD	
	17.05.-25.05	MEDIPIX		
	25.05.-31.05	ATLAS BCM		
	31.05-07.06	Diamond RD42		Prepare EUDET
2	07.06.-14.06		SPIDER	
	14.06.-21.06	CMOSILC	ATLAS -3DSi	
	21.06.-05.07	CMOSILC	NA62	new user!!
3	05.07.-19.07	CERF (in H6Z)		No access to H6A or H6B (?) to be checked with Edda
	19.07.-26.07	CMOSILC	ATLAS-Pix	
	26.07-09.08	MMGAS	ATLAS-Pix	
	09.08-23.08		Diamond/RD42	EUDET?

user	data, GB	# runs	TB location
FORTIS+TPAC	936	1523	DESY
TIMEPIX	-	-	..
APIX-FORTIS	534	942	CERN
NA62	15	288	..
ADiamond(aug)	20	221	..
APIX (july)	85	908	..
ALFA	7..	113	..

EUTELESCOPE SOFTWARE WITH M26



Converter (from **raw** EUDAQ to **Icio** ILCSof)
+ produce HotPixel db file (for off-beam runs)

Clustering
+ use HotPixel db file (for in-beam runs)
+ produce SensorOffset db file (in Correlator)

Hitmaker
+ use SensorOffset db file

Alignment
+ calculate Alignment precision parameters

Fitter
+ build final tracks

..... not implemented yet

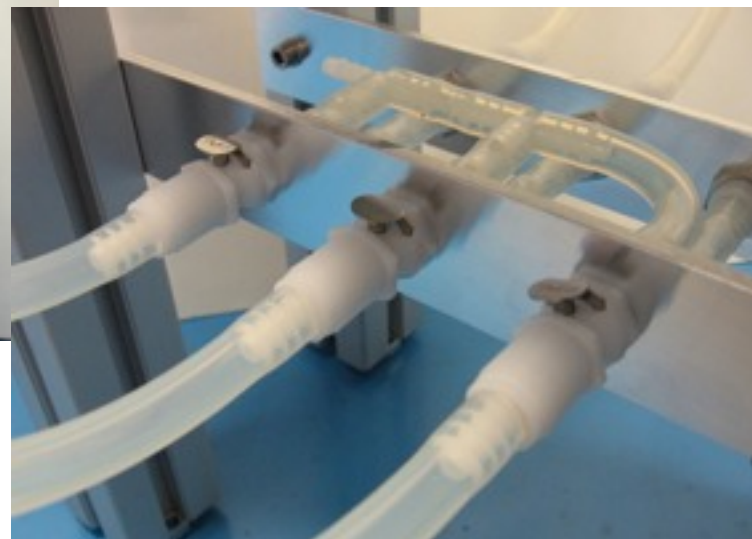
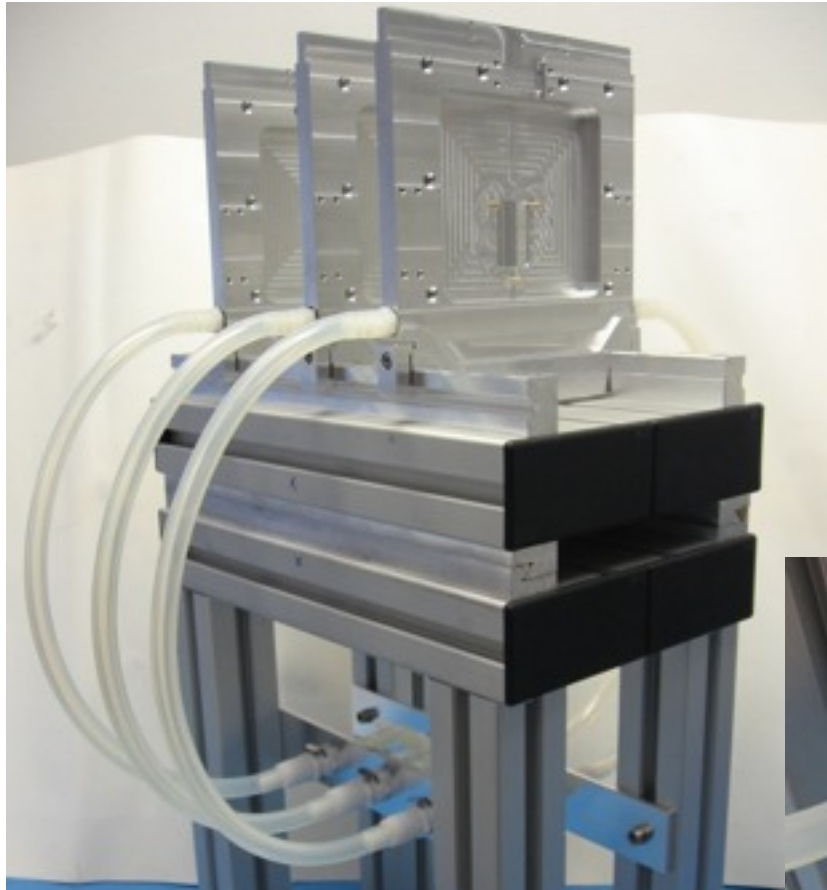
NEW MECHANICS READY

Requirements

- non-magnetic (also all screws)
- material: aluminum and VA2
- Maser-like boxes are temperature stabilised
- quick connection of cooling hoses
- minimum distance between sensors <2 cm, maximum distance 15 cm
- sensor opening 2.5 x 2.5 cm² (ready for ULTIMATE chip...)
- better positioning of DUT (indication of centre of active area, laser system)
- mechanics for PMTs also on rail system possibility to move planes close to DUT
- all sensors oriented in same direction, best solution: we can put them in both ways



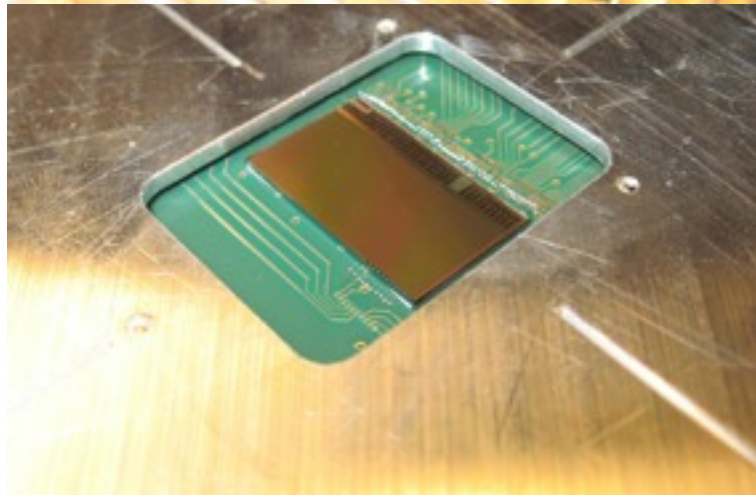
CLOSE UPS



plugable
cooling
connection

- Mini telescope included in this system: all non-magnetic material, can be placed inside PCMAG

INSIDE OF SENSOR BOX



- Sensor is kept in place by pins and sockets

NEW DAQ -> TOWARDS AIDA



- As EUDRB was designed mainly for analog readout Strasbourg looked early on into a fully digital readout system to increase the readout rate
- Commercial solution preferable (copies, AIDA,etc)
- This boards were already used by Strasbourg for some time
- no need to put much additional manpower into the development of the system.
- System provides a lot of flexibility and could also be used for other projects.
- The PXI Express Bus has a very high bandwidth providing a dead time free readout of 6 Mimosa26 sensors.
- As no funds are left in JRA1 we are setting this up in the scope of the telescope copy (one student, Emlyn) and hope to find money to upgrade telescope for the future



New DAQ System for 6 Mimosa26 in Strasbourg

SUMMARY AND OUTLOOK

- EUDET JRA1 telescope is very successful
- Running over the summer was rather smooth due careful preparation
- Even so EUDET is ending, we have already bookings for 2011 and people start to think about 2012 (no SPS)
- Annual meeting will focus on user experience