

Status Lt mod test software

Module Test Meeting

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module qualification test

·All software **for the qualification test** is tested and will be released this week Version lt_0_82 (and was working already for a long time)

·Now based on

- Basic daq software
- linux 2.4 redhad CERN version 7.2 !!
- qt-3 , dim 11

·Installation scripts makes it easy (relative long compile time)

Outcome beta test

- Some details had to be corrected but installation scripts make it easy to install.
- Most problems could be solved by correction in the documentation
- DCU readout problem (timing problem)
- Some timing issues / configuration related problems appears (TSC will be not correct initialized because in the Antwerpen it was already initialized).
- The usual minor problems (some wrong indexes)
- **Thanks to Cristiano Marchettini for testing**

LABS using LtMod

- Firenze operational, beta tester
- Antwerpen operational , cold box
- Louvain La Neuve, measuring , cooling plant connection
- Strasbourg operational updating
- Torino cold box developments
- Padova reinstalling
- Catania installing
- UCSB installing
- FNAL ??? Pisa ??
- Who else ?

Data base interface status

- Was ready before table changes
- Old tables will be produced for the moment. But can not be uploaded to the data base.
- Introduction new tables ~ 2 weeks
So update (means recompilation) needed
- Programming work is not to generate the tables but to fill them.

How to proceed

- Current beta version works stable (lt_0_81)
- On Friday we release version lt_0_82 what just corrected some problems. With this version you can do all necessary test so use it to become familiar with the system
- ~6 March version lt_0_90 for beta test ONLY with new data base tables and checked with the updated FEC software. ~ 1 week of beta test
- ~15 March version lt_1_00 release. So the version that can be used for production of module test

What beta tester we need for the new tables

- Have a running system
- Familiar with root and the produced root files
- Able to understand the results in detail.
- Have some “bad” modules around (at least not perfect).
- Can do data base queries to check if you can do statistics.

Does this person exist ?

Check doc for lt_0_82

- Check the versions remarks.
- Check the lt_example.xml .
 - TRHX controlled cold box / temperature , humidity configuration replaced the (obsolete) Antwerpen mini box configuration.
 - Electro meter tag can be removed

What to do after installation

- Become familiar with the system
 - Become familiar with the data it produced
 - Check your system. Common mode performance. Noise level, timing adjustments
 - Check if it is sufficient for the production
 - Exchange modules and compare results
- (same is true for the ARC systems !)

long term F-MUX integration

- Working under test now. Don't want to mix up with the introduction of the new release (1.0)
- introduction after release data base tables
- Has to be tested out side Antwerpen
- Have to try if connectivity test works
- Documentation has to be written
-

To be added

- Now DCU is only in ADC counts. Want to have in the **local data base** also the physical values (temperature voltage current). Good understanding of the DCU **on the hybrid** is needed. Help is welcome
- remote slow control (Louvain La Neuve)
- fine tuning cold box control (Torino)
- Humidity check before cooling down. Dry air control?
- Advanced qualification procedures
- Interlock strategy.
- Two ccu module support

minor problems to solve

- optimize number of points to the data base for current , temperature and voltage monitoring


features to be added

- reload module , switch on/off modules
- Hard to implement request as more temperature in the GUI

LT planning

- After release of version lt_1_00 soon the release of beta version lt_1_01 incorporating the fine tuning of cold box and F-MUX . Need external testers of that
- Target half of April version lt_2_00 for production of long term test .

module definition page

Modules	Control	Steering	Settings	Monitor	
benchpos 0-4		benchpos 5-9			
Pos	Id	Apvs	ModType	Dcu NR	Check dcu
0	1	4			<input type="checkbox"/>
1	-1	4			<input type="checkbox"/>
2	-1	4			<input type="checkbox"/>
3	-1	4			<input type="checkbox"/>
4	-1	4			<input type="checkbox"/>
Operator <input type="text"/>		Center <input type="text"/>		Init Modules	
ReadBarCode		DBase verification		InitSetup	
				release Modules	
QUIT		elapsed time sec <input type="text"/>			

module definition page


Modules | **Control** | **Steering** | **Settings** | **Monitor**

benchpos 0-4 | **benchpos 5-9**

Pos	Id	Apvs	ModType	Dcu NR	Check dcu
0	<input type="text" value="1"/>	4 <input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
1	<input type="text" value="-1"/>	4 <input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2	<input type="text" value="-1"/>	4 <input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3	<input type="text" value="-1"/>	4 <input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4	<input type="text" value="-1"/>	4 <input type="button" value="▲"/> <input type="button" value="▼"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

Operator **Center**

elapsed time sec



a extended test scenario file

1	Start	default				
-20	ChangeHV	10		-1	PedRun	i2cpedpeakinv
-1	PedRun	i2cpedpeak		-2	BPlaneRun	i2cpedpeakinv
-2	BPlaneRun	i2cpedpeak		-2	CalRun	i2cpedpeakinv
-2	LatRun	i2cpedpeak		-1	SaveRec	2
-2	CalRun	i2cpedpeak		-1	PedRun	i2cpeddecinv
-2	IVRun	i2cpedpeak		-2	BPlaneRun	i2cpeddecinv
-2	CalProfRun	i2cpedpeak		-2	CalRun	i2cpeddecinv
-1	SaveRec	0		-1	SaveRec	3
-1	SaveRec	0		-1	SaveXml	0
-1	PedRun	i2ccaldec		-2	SaveFile	qualifytot
-2	BPlaneRun	i2ccaldec		-1	ChangeHV	0
-2	CalRun	i2ccaldec		-1	Stop	0
-1	SaveRec	1				

for a correct scenario file check the qualxxx.lt files in the distribution

log file part 1

Fri Feb 21 18:46:33 2003 Readscenario qualtot.lt
Fri Feb 21 18:47:09 2003 ScenarioAction PedRun
Fri Feb 21 18:47:18 2003 Stop Test PedRun
Fri Feb 21 18:47:20 2003 ScenarioAction BPlaneRun
Fri Feb 21 18:47:25 2003 Stop Test BPlaneRun
Fri Feb 21 18:47:27 2003 ScenarioAction LatRun
Fri Feb 21 18:50:11 2003 Stop Test LatRun
Fri Feb 21 18:50:13 2003 ScenarioAction CalRun
Fri Feb 21 18:50:21 2003 Stop Test CalRun
Fri Feb 21 18:50:23 2003 ScenarioAction IVRun
Fri Feb 21 18:51:57 2003 Stop Test IVRun
Fri Feb 21 18:51:59 2003 ScenarioAction CalProfRun
Fri Feb 21 18:56:32 2003 Stop Test CalProfRun
Fri Feb 21 18:56:36 2003 Save results to ../data/res
Fri Feb 21 18:56:37 2003 ScenarioAction SaveRec
Fri Feb 21 18:56:39 2003 Save results to ../data/res

part from the remaining logfile

```
Fri Feb 21 18:56:40 2003 ScenarioAction PedRun
Fri Feb 21 18:56:52 2003 ScenarioAction BPlaneRun
Fri Feb 21 18:56:58 2003 ScenarioAction CalRun
Fri Feb 21 18:57:08 2003 ScenarioAction SaveRec
Fri Feb 21 18:57:12 2003 ScenarioAction PedRun
Fri Feb 21 18:57:24 2003 ScenarioAction BPlaneRun
Fri Feb 21 18:58:12 2003 Stop Test CalRun
Fri Feb 21 18:58:13 2003 ScenarioAction SaveRec
Fri Feb 21 18:58:15 2003 Save results to ../data/res
Fri Feb 21 18:58:16 2003 ScenarioAction SaveXml
Fri Feb 21 18:58:16 2003 Save to xml template modvalidation.xml
Fri Feb 21 18:58:18 2003 ScenarioAction SaveFile
Fri Feb 21 18:58:20 2003 Save results to qualifytot
```

deep test time estimation

So a full automatic test in different modes with calibration profile run with 1 mode will take around 15 minutes with generation of the (old) data base tables
(for 1 module).

PAACB issues

- Today order for 125 PCB's (~ 850 €)
 - ~ 40 FNAL ~ 40 TIB ~ 10 CERN ~ 20 TEC 15 spare PCB's
 - Ordering components next week for 110 boards
 - Assembly and testing . Delivery to TOB from 1 April.
 - Price ~100 € (distributed spare part costs so this price includes some maintenance)
- NIM to LVDS converter (for backplane pulse) and I2C connector adaptation board. Offer of LLN to produce them. Contact me soon as possible.