

EXP1803 - Analyzing #183

Express analysis of experimental data

04/13/2018 05:03 AM - Vratislav Chudoba

Status:	Открыта	Start date:	04/13/2018
Priority:	Высокий	Due date:	04/16/2018
Assignee:		% Done:	53%
Category:	Software	Estimated time:	0.00 hour
Target version:			

Description

Various urgent tasks.

Main features of detector geometry are shown on following sketch:

setup.jpg

Used parameters:

- MWPC
 - distance between MWPC1 and MWPC2: 546 mm
 - distance between MWPC2 and target: 270 mm

- wire step: 1.25 mm
- TOF
 - distance between F3 and F5: **XX** mm
 - TDC: 0.125 ns/channel_TDC
- Silicon detectors:
 - distance from target to SQ20
 - distance from target to SQL
 - SQ20
 - thickness 22 microns stated by manufacturer; high level of thickness inhomogeneity observed
 - 16 X-strips
 - 0 -> 15; left -> right
 - SQL
 - 1 mm thick
 - 32 X-strips
 - 16 Y strips
 - X-strips from left to right
 - Y-strips from bottom to top
 - SQR
 - 1 mm thick
 - 32 X-strips
 - 16 Y strips
 - Y-strips from bottom to top

Angles_H5_2.jpg
Detectors location according to measurement by S. Krupko.

Subtasks:

Developing # 184: Калибрация тонково кремневого детектора	Открыта
Analyzing # 186: Number of 3He coincidences with 3H	Открыта
Developing # 187: Калибрация 1 мм кремневого детектора	Открыта
bugs # 190: MWPC bug	Открыта
Developing # 193: Калибровка правого CsI	Открыта
Analyzing # 194: Calibration of time signals	Открыта
Analyzing # 195: First estimate of inhomogeneity of thin Si detector	Закрыта
Analyzing # 207: Particle identification plot for left telescope	Открыта
Developing # 215: Telescope track reconstruction	Закрыта

History

#1 - 06/16/2018 12:33 AM - Vratislav Chudoba

- Tracker changed from *Developing* to *Analyzing*
- Subject changed from *Экспресс анализ экспериментальных данных* to *Express analysis of experimental data*
- Description updated

#2 - 06/16/2018 02:13 AM - Vratislav Chudoba

Raw data may be converted into ROOT format in following way:

1. Go4 library must be available. One of the well working possibilities is to use library created by Egor Ovcharenko. It can be downloaded [here](#). Compilation is performed by bash script "compile.sh". Some play with environment variables is needed. See *.sh scripts. **README file will be created.**
2. Compiled "libUserAnalysis.so" library must be in folder with data to be converted. The use of symbolic link is possible.
3. Conversion of data is performed by command

```
go4analysis -v -lib libUserAnalysis.so -file INPUTFILENAME
```

in folder with treated raw files. INPUTFILENAME is file with raw data either in lmd or lml format.

4. The output is saved in "output.root" file. **This option is probably hardcoded in Go4 library source and will be modified.** The "output.root" should be renamed otherwise it will be replaced by new converted data.

#3 - 06/29/2018 03:55 PM - Vratislav Chudoba

- File *Angles_H5_2.jpg* added
- Description updated

#4 - 09/10/2018 02:38 PM - Ivan Muzalevsky

- Description updated

#5 - 09/10/2018 02:52 PM - Ivan Muzalevsky

- Description updated

Files

Angles_H5_2.jpg	715 KB	06/29/2018	Vratislav Chudoba
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