EXP2003: Express analysis - Analyzing #454

ID plot for F6 detector

04/01/2020 02:30 AM - Vratislav Chudoba

Status:	Открыта	**Start date:**	04/01/2020
Priority:	Нормальный	**Due date:**	
Assignee:	Vratislav Chudoba	**% Done:**	50%
Category:		**Estimated time:**	0.00 hour
Target version:			

Description

Provide the time-amplitude identification plot for a detector at F6. A group Z=1 should be separated from group Z>1. Provide a condition for Z=1 group in an arbitrary format.

Be careful with different geometry before and after run 40.

History

#1 - 04/06/2020 12:33 AM - Vratislav Chudoba

- Assignee set to Vratislav Chudoba

- % Done changed from 0 to 50

To construct an identification plot from the F6 detector, a non-calibrated amplitude in ADC channels from only one PMT was used. The time was calculated as time in F6 minus time in F5. We may observe the separation of Z=1 region and Z>1 region. A common condition for both used geometries to select the Z=1 group was determined as

dE less than 0.3 and time(F6-F5) more than 23 ns and time(F6-F5) less than 44 ns.

f6.png

Left - overall unconditioned time-amplitude identification plot. **Upper middle** - Zoom to the relevant part of the ID plot. Trigger==1 was used to exclude group Z=1. **Lower middle** - Zoom to the relevant part of the ID plot triggered by side telescope (trigger==6). Red dots represent the Z=1 group showed with the additional condition for beam size at the target plane introduced in task 452. **Upper right** - the same as "upper middle" but for geometry modified from run_40. **Lower right** - the same as "lower middle" but for geometry modified from run_40.