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Subject: Re: FRS Calibration Issue  
Posted by [mlcortes](#) on Fri, 16 Jan 2015 12:49:28 GMT  
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Hi Scott!

Your scintillator plots look fine and I understand that you are happy now with the position calibration.

So, to answer your questions:

- Usually, in the last bin you accumulate all the events with a Tof higher than the range of the TDC. From your spectrum I see you are close to the end of the range, so you can have many events with higher Tof.

- About your id, it looks decent, but of course there are ways to improve it.

The first thing you can do is plot the AoQ vs S4 position. If everything is fine this should be a straight line.

I see from an older post where you have an id plot with AoQ between 0.5 and 3.5 that you have a lot of event out of the main area. To try to improve this, and also to see the event out of the range of the TDC you can use the MhTDC instead of the TAC.

Also, if the efficiency of TPCs at S4 is not a problem you can use a cut in the S4 position vs time left-right. The points out of the line are more likely contributing to the background.

About the shift on the MUSICS, you can try to check energy loss vs S4 position for each calibration file. There may be a small dependence that can be corrected.

Hope it is useful for you and let me know how it goes,  
Liliana

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