Subject: PSA hit times from AGATA unpack crate
Posted by Tom Alexander on Thu, 09 Oct 2014 14:33:03 GMT
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The current version of the AgataPsa crate does not seem to forward the times for each hit, unless I am misinterpreting something.

Is it possible to extract timing information for each interaction point? It seems like this is the case; as far as I can tell this information is read, and then simply not forwarded as the energy and positions are. I am wondering if there is a reason for this.

Subject: Re: PSA hit times from AGATA unpack crate
Posted by Damian Ralet on Thu, 09 Oct 2014 14:39:26 GMT
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Hi Tom,

In theory, concerning the MH-TDC, you have the time information for all core energy higher than the threshold (depending on your experiments).

The time of every-hit (in the AGATA sence) has to be taken from the PSA frame (TimeStamp + sub-timestamp), and not from the AGATA crate.

Cheers,
Damian

Subject: Re: PSA hit times from AGATA unpack crate
Posted by miree on Fri, 10 Oct 2014 09:37:41 GMT
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I've never seen a PSA frame containing time information of PSA hits. As far as I know (please correct me if I'm wrong), no PSA algorithm provides this information yet. They just write zeros in the time fields. I even don't know if someone is currently working on any PSA algorithm that provides times.

The PSA unpacker in the AgataPsa crate reads all numbers from the PSA frame and makes them accessible to other processors.

Edit: Sorry, you were right: The time is not forwarded, and the reason is that there was never any number apart from zero in the PSA frames... Do you have times in your PSA frames? Also there are fields in the PSA frames that are supposed to contain the errors on position, energy and time. These are also not forwarded (because they were all zero as well).

Subject: Re: PSA hit times from AGATA unpack crate
Posted by Damian Ralet on Tue, 14 Oct 2014 12:04:21 GMT

Well, since you are having the traces, one can say to get a time for all hit.
In practice, a averaging time of segments net charges and core, corrected by the PSA is available in the PSA frame. In addition, the timestamp is of a the frame is available.