

---

Subject: [FIXED] PndTrkTracking2 statusflag array is not initialised

Posted by [Alaa Dbeyssi](#) on Mon, 23 Jun 2014 15:07:54 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Dear all,

I experienced some problems with the efficiency of full reconstruction using the HIMSTER cluster of MAINZ:

1-The efficiency for the single particle reconstruction (electron in the present case) is about 10 % smaller than what I obtained in my previous simulations on my personal PC.

2-This efficiency obtained on HIMSTER changes by repeating the reconstruction step and using the same input from the event generator and the digitisation.

I used the scrut14 version of PANDAROOT compiled april13 external package.

After some debating with Anastasia, we realised the difference in the efficiency comes from pattern recognition step. This problem was difficult to debug, since it appears only in simulation at HIMster and we could not provide any test macros for external debugging. Therefore we went more deeply in the PndTrkTracking2 code by ourselves.

Among many other arrays which are defined, but not initialised, there is one which called statusflag. The values of this array is used during track search procedure. But since it is not initialised one can observe random or unstable behaviour. We would like kindly ask developers have a look at the code and fix it, please. As a temporary solution we initialised elements of the array by value 1. But we are not sure if this solution is correct one, because we don't know exactly the meaning of this array in the code.

Best regards,  
Alaa & Anastasia.

---

---

Subject: Re: PndTrkTracking2 statusflag array is not initialised

Posted by [Gianluigi Boca](#) on Tue, 24 Jun 2014 11:57:17 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hi Alaa,

yes indeed statusflag was a "remnant" forgot in the code for historical reasons.

Please find a new version of  
PndTrkTracking2.cxx  
in the trunk.

Please let me know if you still have problems

cheers  
Gianluigi

Alaa Dbeyssi wrote on Mon, 23 June 2014 17:07Dear all,

I experienced some problems with the efficiency of full reconstruction using the HIMSTER cluster of MAINZ:

1-The efficiency for the single particle reconstruction (electron in the present case) is about 10 % smaller than what I obtained in my previous simulations on my personal PC.

2-This efficiency obtained on HIMSTER changes by repeating the reconstruction step and using the same input from the event generator and the digitisation.

I used the scrut14 version of PANDAROOT compiled april13 external package.

After some debating with Anastasia, we realised the difference in the efficiency comes from pattern recognition step. This problem was difficult to debug, since it appears only in simulation at HIMster and we could not provide any test macros for external debugging. Therefore we went more deeply in the PndTrkTracking2 code by ourselves.

Among many other arrays which are defined, but not initialised, there is one which called statusflag. The values of this array is used during track search procedure. But since it is not initialised one can observe random or unstable behaviour. We would like kindly ask developers have a look at the code and fix it, please. As a temporary solution we initialised elements of the array by value 1. But we are not sure if this solution is correct one, because we don't know exactly the meaning of this array in the code.

Best regards,  
Alaa & Anastasia.

---

Subject: Re: PndTrkTracking2 statusflag array is not initialised  
Posted by [Alaa Dbeyssi](#) on Wed, 25 Jun 2014 09:54:38 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Dear Gianluigi,

thank you very much for fixing the problem. Now the results seem ok:  
Simulations with the same seed (same MC events and digitization), on HIMster and on my personal PC, give same values of the reconstruction efficiency.  
Best regards,

Alaa

---

Subject: Re: PndTrkTracking2 statusflag array is not initialised  
Posted by [Stefano Spataro](#) on Wed, 25 Jun 2014 09:55:42 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

One problem less?

---