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Subject: Usage of FairLink

Posted by [Volker Frieze](#) on Fri, 19 Apr 2013 11:15:28 GMT

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In the process of using the FairLink scheme, I came across several questions and was unable to find some documentation, so I post them here:

1. FairLink has several constructors. The basic difference is whether the object to be linked to is specified by branch name (TString) or type (Int\_t). Is there some recommendation which one to use?

2. FairMultiLinkedData::AddLink (FairLink link, Bool\_t bypass=kFALSE, Float\_t mult=1.0):  
What is the meaning of bypass and mult?

Thanks in advance,

Volker

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Subject: Re: Usage of FairLink

Posted by [Tobias Stockmanns](#) on Fri, 19 Apr 2013 11:59:03 GMT

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Dear Volker,

here are the answers to your questions:

1) The type inside the link is used to identify the branch inside a Tree where the data is stored. The FairRootManager creates a unique ID for each branch which is stored in the FairLink. The constructor using a TString gets the branch name and translates it via the FairRootManager into the type while the constructor with an Int\_t type gets this unique ID directly.

2 a) The bypass parameter allows to suppress links to intermediate steps which are not of interest. If one adds a link to FairMultiLinkedData with bypass = true then the links are stored where the given link is pointing to and not the link by itself.

2 b) The mult. parameter is used to create a weight if you use the links to retrieve MC data. For example if you want to know the MC track for a reconstructed track it might be, that the reconstructed track is merged from data of different MC tracks. Therefore you do not get a single MC track as a result but many. The weight parameter helps to sort the results by their significants.

As a user who is setting the links the parameter should be always 1.

I hope I could answer your questions.

Cheers,

Tobias

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