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Subject: Tree with arrays in the leafs

Posted by [C. A. Douma](#) on Mon, 18 Jan 2016 13:21:06 GMT

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Dear Mr. Kresan,

How is the cbmsim tree created? I am trying to create a tree myself where I need to store multiple numbers per event inside a leaf, but I cannot get it done. Can you tell me exactly how this is done when the cbmsim tree is created?

Thank you in advance!  
Christiaan Douma.

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Subject: Re: Tree with arrays in the leafs

Posted by [Dmytro Kresan](#) on Mon, 18 Jan 2016 15:35:10 GMT

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Hello Christiaan,

Here is the sample code, in case you want to store arrays of objects inheriting from TObject. For arrays of simple numbers you can use TArrayI or TArrayF instead of TClonesArray.

```
TFile *file = new TFile("filename.root", "RECREATE");
TTree *tree = new TTree("tree_name", "Title");
TClonesArray *myarray = new TClonesArray("NameOfYourClass");
tree->Branch("mybranch", "TClonesArray", &myarray);
```

```
// Event loop
for(Int_t i = 0; i < 100; i++)
{
    // Data loop
    for(Int_t k = 0; k < 20; k++)
    {
        new ((*myarray)[k]) ConstructorOfYourClass(..parameters..);
    }

    tree->Fill();
    myarray->Clear();
}
tree->Write();
file->Close();
```

Cheers,  
Dima

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Subject: Re: Tree with arrays in the leafs  
Posted by [C. A. Douma](#) on Mon, 18 Jan 2016 15:37:51 GMT  
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Thank you!

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Subject: Re: Tree with arrays in the leafs  
Posted by [Bastian Löher](#) on Mon, 18 Jan 2016 16:03:00 GMT  
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Shouldn't this code be somewhere in the tutorials? Or is it already?

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Subject: Re: Tree with arrays in the leafs  
Posted by [Dmytro Kresan](#) on Mon, 18 Jan 2016 16:22:38 GMT  
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To my opinion this is not really R3BRoot related. This functionality is implemented in the FairRootManager::Register() and GetObject() methods.

In addition, as far as I remember, this is part of ROOT tutorials.

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