

Ntuple Documentation

C&A Meeting

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The Problem

Current Documentation

- is not tied to releases
- is separate from the code
- is updated by hand, tediously
 - Updater (i.e. me!) is not the code expert
- **is always outdated!!**

The Solution

doxygen has a feature to allow collection of documentation to a single page:

```
/** @page mypage This is my Page
    stuff...
 */
...
/** @page mypage
    more stuff...
 */
```

This command can cross files.

So... move the documentation to the Tool

Use the primitive html capability of doxygen to make a table:

```
/** @page anatup_vars_optional
    @section tkrhitvalstool TkrHitValsTool Variables

<table>
<tr><th> Variable
<th>          Description
<tr><td> TkrNumHits
<td>          Total number of TKR clusters
...
<tr><td> TkrHitsInLyrNN, NN=(00,17)
<td>          Number of clusters in (bi)layer NN
                (numbered from the bottom of the tracker)
</table>
*/
```

indentation for readability

Slight wrinkle...

- Items are displayed in the output page alphabetically according to the name of the file where they originate (I think!).
- Add a file `_Intro.h` to output the introduction:

```
/** @page anatum_vars_optional Optional AnalysisNtuple Variables  
  
@section Introduction  
  
Listed below are the variables produced by the ValsTools which  
are not part of the official merit ntuple, but which may be  
invoked by adding their names to the tool list.  
.  
.  
.  
*/
```

doxygen Output

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AnalysisNtuple Related Pages

Here is a list of all related documentation pages:

- [Official AnalysisNtuple Variables](#)
- [Optional AnalysisNtuple Variables](#)

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doxygen Output, cont.

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Optional AnalysisNtuple Variables

Introduction

Listed below are the variables produced by the ValsTools which are not part of the official merit ntuple, but which may be invoked by adding their names to the tool list.

TkrHitValsTool Variables

Variable	Description
TkrNumHits	Total number of TKR clusters
TkrFirstLayer	First layer containing a cluster
TkrNumLayersHit	Total number of hit layers
TkrHitsInLyrNN, NN=(00,17)	Number of clusters in (bi)layer NN (numbered from the bottom of the tracker)

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Current status and plans

- AnalysisNtuple code has been converted
 - Initial best-guess at descriptions of variables
- Will commit and tag today
- Responsible authors will review and amend
- Chuck will link to the DC2-release [doxygen](#) page
- In the future, authors will be responsible for updating the documentation when they update the code (subject to routine editorial review).