

# Overview of software activities

Ch. Finck & M. Toppi

XII FOOT Collaboration Meeting



# The last months..

→ .. have been “still” busy ...

- Many bug fixes and code improvements:
  - Remove compiler warnings
  - Checking input file presence
  - Put position in CALO Hit
  - Correct Rec Point computing for MSD
  - Change fragment read back for raw data
  - Add fragment for ITR
  - Correct mapping file reading (MSD/CAL)
  - Proper switch Off/On for detectors (CAL)
  - Add option for reading only one sub-file in raw data
  - Extract run number from DAQ file name
  - Add ancillary detectors (neutron, scintillators)
  - ....

# Status (i)

- ➔ We are near the Goal:
  - All detectors are in shoe with all the interfaces (finally)
  - The developments on the detector side
    - Need to compute calibration/alignment parameters for CNAO campaigns
  - Global alignment strategy: BM+VTX+MSD (Thanks to Yun & co)

# Status (ii)

- ➔ Oxygen documentation ongoing, server hosted in Roma (ST, MSD, TW, CA not done)

## SHOE documentation

Main Page | Related Pages | Modules | Namespaces | Classes | Files

### TAVTactNtuVertex Class Reference

NTuplizer for VTX vertices. More...

Inheritance diagram for TAVTactNtuVertex:

```
graph TD; Thinned --> TAGnamed; TAGnamed --> TAGaction; TAGaction --> TAVTactBaseNtuVertex; TAVTactBaseNtuVertex --> TAVTactNtuVertex;
```

#### Public Member Functions

<code>virtual ~TAVTactNtuVertex ()</code>	Destructor.
<code>void SetEps (Double_t q)</code>	Set tolerance.
<code>Double_t GetEps () const</code>	Get tolerance.
<code>void SetMinimumZ (Double_t mn)</code>	Set minimum Z for vertices search.
<code>Double_t GetMinimumZ () const</code>	Get minimum Z for vertices search.
<code>void SetMaximumZ (Double_t mx)</code>	Get maximum Z for vertices search.
<code>Double_t GetMaximumZ () const</code>	Set maximum Z for vertices search.

Public Member Functions inherited from TAVTactBaseNtuVertex

Public Member Functions inherited from TAGaction

Public Member Functions inherited from TAGnamed

## Detailed Description

NTuplizer for VTX vertices.

## Constructor & Destructor Documentation

### ◆ TAVTactNtuVertex()

```
TAVTactNtuVertex::TAVTactNtuVertex ( const char * name = 0,
                                     TAGdataDesc * pNtuTrack = 0,
                                     TAGdataDesc * pNtuVertex = 0,
                                     TAGparaDesc * pConfig = 0,
                                     TAGparaDesc * pGeoMap = 0,
                                     TAGparaDesc * pGeoMapG = 0,
                                     TAGdataDesc * pBmTrack = 0
                                   )
```

Default constructor.

#### Parameters

[in]	<b>name</b>	action name
[in]	<b>pNtuTrack</b>	track container descriptor
[out]	<b>pNtuVertex</b>	vertex container descriptor
[in]	<b>pConfig</b>	configuration parameter descriptor
[in]	<b>pGeoMap</b>	geometry parameter descriptor
[in]	<b>pGeoMapG</b>	target geometry parameter descriptor
[in]	<b>pBmTrack</b>	input BM track container descriptor

# 'final' considerations

Local/Global Reconstruction is available:

- ➔ Please use the latest version (master or newgeom) for reconstruction:
  - Helping a lot for debugging and make the code more stable (many thanks to Yun, Giuseppe, Roberto Z.... who are our Beta testers)
- ➔ Please push your changes in the newgeom branch to make them available for everybody

Pb of recurrent man power, need at least one guy per detector  
Calibration/alignment done by the core team !

# What's ahead of us..

## ➔ Improve documentation:

- Update the twiki page, could be improved
  - <http://arpg-serv.ing2.uniroma1.it/twiki/bin/view/Main/FOOTSoftware>
- We still need to update the Doxygen documentation
  - <http://arpg-serv.ing2.uniroma1.it/FOOTshoe/shoe/html/index.html>

## ➔ Analyse GSI2021 - CNAO2022 data:

- still pending issues



Thanks for your attention