

# Overview of software activities

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[XIV FOOT Collaboration Meeting](#)



# The last months..

➔ .. have been “still” busy ...

\*more details: <https://agenda.infn.it/event/35350/>

– Many bug fixes and code improvements\*:

- cmake debug option per default / README.md right under shoe
- **Remove fullrec/level0 folder**
- **Rename Shoe/libs/src to Shoe/Libraries (remove src folder)**
- **Rename LocalReco(MC) to RecoRaw(MC), only one executable**
- **Reduce code in BaseReco, RecoRaw and RecoMC**
- **Introduce name manager handling action, branch, data, para names**
- **New calibration parameters of  $\Delta T_{AB}$  for TW (featuring new files)**
- Introduce new class to write out flat tree
- New flag for MC noise handling in global parameters
- Implemented night build checking: pull, compile, run & test
- ref. histograms (sending mail when error occurs)
- ....

# Status (i)

- We are near the Goal:
  - All detectors are in shoe with all the interfaces (finally)
  - The developments on the detector side
    - Calibration ongoing for CAL
    - Eta function study ongoing for MSD
  - Discussion ongoing for magnetic field direction

# Status (ii)

→ Doxygen documentation ongoing, server hosted in Roma (ST, MSD, 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 BT; TNamed --> TAGNamed; TAGNamed --> TAGaction; TAGaction --> TAVTactBaseNtuVertex; TAVTactBaseNtuVertex --> TAVTactNtuVertex;
```

#### Public Member Functions

<code>TAVTactNtuVertex</code> (const char *name=0, TAGdataDsc *p_ntutrack=0, TAGdataDsc *p_ntuvertex=0, TAGparaDsc *p_config=0, TAGparaDsc *p_geomap=0, TAGparaDsc *p_geomapG=0, TAGdataDsc *p_bmtrack=0)
<code>virtual ~TAVTactNtuVertex</code> () Destructor.
<code>void SetEps</code> (Double_t q) Set tolerance.
<code>Double_t GetEps</code> () const Get tolerance.
<code>void SetMinimumZ</code> (Double_t min) Set minimum Z for vertices search.
<code>Double_t GetMinimumZ</code> () const Get minimum Z for vertices search.
<code>void SetMaximumZ</code> (Double_t max) Get maximum Z for vertices search.
<code>Double_t GetMaximumZ</code> () const 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,
                                     TAGdataDsc * pNtuTrack = 0,
                                     TAGdataDsc * pNtuVertex = 0,
                                     TAGparaDsc * pConfig = 0,
                                     TAGparaDsc * pGeoMap = 0,
                                     TAGparaDsc * pGeoMapG = 0,
                                     TAGdataDsc * pBmTrack = 0
                                     )
```

Default constructor.

#### Parameters

- [in] **name** action name
- [in] **pNtuTrack** track container descriptor
- [out] **pNtuVertex** vertex container descriptor
- [in] **pConfig** configuration parameter descriptor
- [in] **pGeoMap** geometry parameter descriptor
- [in] **pGeoMapG** target geometry parameter descriptor
- [in] **pBmTrack** 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 making 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 - HIT2022 - CNAO2022 data:

- still pending issues



Thanks for your attention