

HPS Software Tasks

HPS collaboration meeting

June 6, 2013

Tons done

Simulation:

- Full EGS5 input with degraded beam.
- Truth info

Monitoring Tools:

- Jeremy's tool.

Calibration:

- SVT Calibration codes
- ECAL calibration codes, first pass by Sho.

Reconstruction:

- DST maker

Studies:

- Test run analysis
 - Vertexing
 - Tracking efficiency
 - Trigger efficiency

Lot's more to do

Software Tasks

Simulation:

- Beam line parts: SVT enclosure
- Muon System into GeomConverter
- Integrate tools with Jlab batch system.
- Full B Field
- Hadron generation in the simulation (G4, Fluka output merging)

Monitoring Tools:

- Implement details on Jeremy's tool.
- Event Display.

Calibration:

- Alignment codes
- ECAL calibration codes
- Muon detector calibration codes
- Create **conditions system**

Reconstruction:

- Kalman filter
- Full B Field
- Fringe field correction to vertex (code)
- Include strip hits in fitting code

Studies:

- Muon system rates
- Muon system trigger
- ECal rates/trigger with full background
- Pion trigger?
- Background due to pions/neutrons/protons
- True Muonium study

Software Group

Active & enthusiastic group.... Join us!

hps-software@slac.stanford.edu

<https://confluence.slac.stanford.edu/display/hpsg/Simulation+and+Reconstruction+Software>

Simulation and Reconstruction Software - Heavy Photon Search Group - SLAC Confluence

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Project Overview

Research Opportunities

Physics

Publications and Presentations

Meetings

Tracking and Vertexing Detector

DAQ and Trigger

Calorimeter

Beamline and Magnet

Muon Detector

Simulation and Reconstruction Software

Documentation

Software Meetings

HPS Analysis and Software Topics

HPS Software Wish List

Conditions

Data Definitions

HPS Offline Computing Model (Processing and Storage)

Operations

HPS Test Run Analysis

Data Analysis Working Group

Edit Add Tools

 **Simulation and Reconstruction Software**

Added by Tim Nelson, last edited by Maurik Holtrop on Jun 03, 2013 (view change)

Documentation:

[Documentation for HPS Software.](#)

[HPS Analysis and Software Topics](#)

Quick Start

At JLAB, a common release of the software is installed in the "clashps" account: ~clashps/HPS_Software/. Under this

Documentation,
How to get started
Where the data?
Meetings

Updated by everyone