# 2021 Reconstruction Passes

**This page is intended as a portal to information about the processing of the data taken during the summer of 2021.**

## Data Taking

Data were accumulated at two energies: 1.92 and 3.74GeV.

More information about the run can be found in the 2021 Run Spreadsheet on the HPS Run Wiki.

## Reconstruction Pass0

A first pass reconstruction, pass0, will be performed using a tagged release of hps-java: Release 5.1 Release · JeffersonLab/hps-java (github.com).

The production version of the jar file can be downloaded directly from https://github.com/JeffersonLab/hps-java/releases/download/hps-java-5.1/hps-distribution-5.1-bin.jar .

Events can be reconstructed with the following command line:

```
java -cp hps-distribution-5.1-bin.jar org.hps.evio.EvioToLcio -x /org/hps/steering/recon
/PhysicsRun2021_pass0_recon_evio.lcsim -r -d HPS_Run2021Pass0_v1 -DoutputFile=outputFile inputFile
```

Note that data taken between runs 14624 and 14673 were accumulated at the single-pass energy of 1.92GeV, so the detector **HPS_Run2021Pass0_v1_1 pt92GeV** should be used when reconstructing those events.

The remaining data taken at 3.74GeV should be reconstructed using the **HPS_Run2021Pass0_v1** detector.

More details of the plans for the pass0 reconstruction can be found here.

## Output Data Files

The output files of the reconstruction will be available at JLab:

/cache/hallb/hps/physrun2021/production/pass0

## Data Analysis

2021 FEE Analysis,  - Norman Graf - November 16, 2022

2021 Analysis of data using SVT positioning wires as target  - Norman Graf - November 17, 2022

2021 FEE Update using Run 14168 @ 3.74GeV  - Norman Graf - November 18, 2022

2021 FEE Update using Run 14628 @  1.92GeV  - Norman Graf - November 18, 2022

2021 Pass0 1.92GeV Møller Analysis - Norman Graf - November 29, 2022

## Issues

- [ ] Top track fit chi-squared is too high.
- [ ] Large offsets in track-cluster matching in x.