

Driveline

Through the [OpenBiomechanics Project](#), [Driveline Baseball](#) has made elite-level motion capture data publicly available. The data can be downloaded from [Driveline's GitHub repository](#).

Having access to large datasets is a great asset, but processing these large datasets can take time (and patience). Inspect3D is designed to streamline this process. The steps in this tutorial describe how to create CMZ files from the pitching and batting data sets, then inspect and group the data in Inspect3D.

Download

Download the files directory from the [repository](#) (Code → Download ZIP).

Data Structure Outline in openbiomechanics-main folder:

- baseball_hitting
 - code
 - v3d
 - CMO.v3s
 - model
 - hitting_v1_model_hybrid.mdh
- data
 - metadata.csv
 - c3d
- baseball_pitching
 - code
 - v3d
 - CMO.v3s
 - model
 - v6_model_hybrid_lm.mdh
 - data
 - metadata.csv
 - c3d

Download the [HAS-Motion Specific Files](#):

1. Filter Script
2. Event Script

1. Note: The event script updates the force platform parameters. Visual3D automatically combines the forces when one foot is in contact with two plates but requires the surfaces to be parallel (or close to). This script adjusts the corners which are coincident to allow the forces to be combined. This script is specific to this data set.

Additional files are provided as examples, but not necessary for processing (files to automatically build group definitions, a subset of group definitions, and sample workspaces).

Inspect3D

Auto Build Settings File:  Browse



Get Signals from:

☐ Global Value (across trial metric)

Signal Type:

Signal Folder:

Combine sides?

☐ Do NOT combine sides

☐ Combine Left/Right

☐ Combine Side Based on Tag

☒ Baseball

☐ Compare conditions using tags:

☒ Refine using signal 

Refinements

MILB

College

 

Info:

Dominant Arm Label:

Nondominant Arm Label:

Lead Leg Label:

Trail Leg Label:

Right Dominant Tag:

Left Dominant Tag:

Start Event:

End Event:

- Alternative: Click **Browse** to load these settings from an XML file to compare two playing levels (MILB vs. College).
 - C:\...\CMotion Files\AutoBuilderSettings_Pitch.xml
 - C:\...\CMotion Files\AutoBuilderSettings_Hit.xml
- Click **Create**
- In **Group Definition** dialog, delete groups you are not interested in calculating.
- Click **Calculate All Groups**
- Inspect your data!

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