MoVi: Data Access Tutorial

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1. Introduction

This pdf file contains the information you need to access and download our video, motion capture and IMU data.

You can find a tutorial for the support code on the following GitHub

The video, motion capture and IMU data are hosted on the SPDataverse

2. Scholar's Portal Dataverse (Data)

Our Data is hosted on Scholar's Portal Dataverse, a publicly accessible, Canadian data repository.
The BML-MoVi database is nested under the BioMotionLab Dataverse, which is nested under the York University Dataverse.
Access to the BML-MoVi database is limited and only available for research purposes as outlined in the license agreement.
In order to gain access to the data, you must create an account with the Scholar's Portal Dataverse using an institutional email address.
Due to the restrictions of the system, you must request access to all the files in the dataverse. Details on how to apply for access are discussed below.
Once you have access, you will be able to download all the data related to the BML-MoVi database.
The Dataverse has a 5 GB limit on the size of bundled file downloads. Therefore, video files can be downloaded roughly 10 at a time.

3. Scholar's Portal Dataverse Searching/Sorting Tools

The following is an introduction to the tools available in the Scholar's Portal Dataverse that will be needed to access the data.
The Dataset page contains a description of the BML-MoVi database as well as an option to cite the dataset.

Below the description, there are four tabs: Files, Metadata, Terms and Versions:

- The **Files** tab contains all the data
- The **Metadata** tab contains the metadata, author information and contact details
- The **Terms** tab contains the License and Terms of use for the BML-MoVi database

- The **Versions** tab contains earlier versions of the dataset

The **Files** tab is the most important one for our needs and it contains the following features:

- A **Search** field
- A **File Type** filter
- An **Access** filter
- A **File Tag** filter
- A **Sorting** button
- Below the filters is the window that contains the data files
    - The first row contains the **Select-All Check Box**, **File Range Info** and **Download** Button
    - The first column contains a **Check Box** to select individual files.
    - The **Select-All Check Box** at the top of the column can be **ticked** to select all the files in the current range. If the **Select-All Check Box** is **ticked**, a dialogue will display giving an option to **Select-All Files in this Dataset**. This option only selects the files under the current filter options. This will be used later.
    - The second column contains the **File Name**, **Format**, **Date Uploaded** and **Identifier**. It also contains a **Download** or **Request Access** button.

4. Requesting Access

These are the steps to request for access to all the files in the MoVi Database

1. Navigate to the **Files** Tab
2. Select the **Select-All Check Box**
3. Click on the **Select all 1,056 files in this dataset** link
4. Select the **Request Access** button found in top row
5. Accept the terms and conditions when requesting access
6. Please wait for us to grant you access to the BML-MoVi database

You will have download access to the database soon after we accept your request.

5. Data Structure

The BML-MoVi database contains two types of files: **Archive** and **Video** Files

- The **Archive** files are in ".tar" format and can be extracted using a File Archiving software.
    - 7-Zip was the File Archiver used to compress the files and may yield the best results when extracting.
- The **Video** files are in ".mp4" and ".avi" format.

6. Archive Data

The **Archive** files contain the following data:

- Camera Intrinsic & Extrinsic Parameters (1 file)
- MoCap (AMASS) data (1 file)
- MoCap (V3D) data (3 files): "F" round data (2 files) and "S" round data (1 file)
- IMU (MATLAB) data (6 files)

The naming for the files follows the format of:

- <Round>_<Data Type>_<Subjects> (with the exception of the "Camera_Parameters.tar" file)
    - Round can be any of the following: {F, S1, S2, I1, I2}
    - Data Type can be any of the following: {AMASS, V3D, IMUmatlab, IMUbvh}
    - Subject ranges show the number of subject data in each file

The following steps can be used to quickly access the data files

1. Select "Archive" in the "File Type" filter (Found under the "Search" field)
2. Type the relevant query into the search field
3. Select the file(s) and press the request access button to the right
4. Accept the terms and conditions when requesting access
5. Please wait for us to grant you access to the BML-MoVi database
6. Repeat steps 1-3 and press the download button to the right
    - If you are downloading multiple files, use the download button on the top row

For example:

- If you are searching for "S V3D files", your search query would be: "S_V3D"
- If you are searching for "IMU Matlab files", your search query would be: "IMUmatlab"
- If you are searching for "AMASS files", your search query would be: "F_AMASS"

7. Video Data

The "Video" files contain the following data:

- F round motions from Camera Phone 1 (90 files)
- F round motions from Camera Phone 2 (88 files)
- F round motions from Point Gray 1 (89 files)
- F round motions from Point Gray 2 (90 files)
- S1 round motions from Camera Phone 1 (90 files)
- S1 round motions from Camera Phone 2 (88 files)
- S1 round motions from Point Gray 1 (88 files)
- S1 round motions from Point Gray 2 (90 files)
- S2 round motions from Camera Phone 1 (90 files)
- S2 round motions from Camera Phone 2 (88 files)
- S2 round motions from Point Gray 1 (89 files)
- S2 round motions from Point Gray 2 (88 files)

The video data in this database has been **tagged** appropriately to enable easier access to downloading the files.
The **tags** can be used to filter out video data from specific **Cameras** or **Rounds**

The naming for the files follows the format of:

- <Round>_<Camera Type>_<Subject>
    - Round can be any of the following: {F, S1, S2, I1, I2}
    - Camera Type can be any of the following: {CP1, CP2, PG1, PG2}
    - Subjects can be any of the following: {1, 2, ..., 90}

The following steps can be used to quickly access specific video files:

1. Select "Video" in the "File Type" filter (Found under the "Search" field)
2. Type the relevant query into the search field
3. Select the file(s) and press the request access button to the right
4. Accept the terms and conditions when requesting access
5. Please wait for us to grant you access to the BML-MoVi Dataverse
6. Repeat steps 1-3 and press the download button to the right
    - If multiple files are being downloaded, use the download button on the top row

For example:

- If you are searching for all the "F motions", you would use the **F Round** tags
- If you are searching for "S2 motions from PG2 camera", you would use the **S2_PG2** tag
- If you are searching for "F motions from CP2 camera by subject 13", your search query would be: "F_CP2_Subject_13"

8. Contact Information

Please email us at movidb@yorku.ca if you have any questions or need assistance in accessing the data