

Installation instructions for GLiMR version 1.0, as described in the “GLiMR: A GIS-Based Method for the Geometric Morphometric Analysis of Artifacts” manuscript published in Lithic Technology

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***** NOTE: The files contained within this dataset are for archival purposes only. Please see the PSAL website (<http://psal.oregonstate.edu>) for an up to date version of GLiMR which contains numerous bug fixes and new features. These instructions will process the xyz files that were discussed in the LT manuscript. Working knowledge of ESRI’s ArcGIS is highly recommended.**

1. GLiMR Prerequisites :
GLiMR requires the following applications to be installed:
 - a. Windows computer running at least ArcGIS 10.2 with 3D Analyst and Spatial Analyst extensions enabled.
 - b. 32 bit version of python 2.7 (<https://www.python.org/downloads/>).
 - c. 32 bit version of Java. (<https://java.com/en/download/manual.jsp>).
2. Download documentation and toolbox zip files from OSU Scholars Archive. Extract GLiMR_Toolbox_Feb_2015_Static file to C:\GLiMR or D:\GLiMR
3. GLiMR uses an environment file to track directories. It is named GLiMR.env.txt
GLiMR looks in C:\GLiMR or D:\GLiMR by default for this file.
4. Open ArcCatalog, right click on “Folder Connections”, and choose “Connect to Folder” Navigate to the “C:\GLiMR” or “D:\GLiMR” folder and click on OK
5. In ArcCatalog, enter the “GLiMR_Software” directory, double click on “GLiMR_Toolbox.pyt”, and then double click on “GLiMR Batch Mode”. Click “OK”.

Note - Assuming you have all the prerequisite software packages listed in step 1, GLiMR should now go through each of the .XYZ files that were included in the archive and generate the data that was covered in the Lithic Technology manuscript. The time it takes to process each individual file is dependent on the speed of your computer. On an Intel i7 4790 computer with SSD drive it takes 2-4 minutes per xyz file.

6. To generate Procrustes points (only works with stemmed point morphologies), run the “GLiMR Compute Stemmed Point Landmarks” tool. Accept the defaults and click OK.
7. Run the “GLiMR Summarize Statistics” tool. Accept the defaults and click OK.
8. Run the “GLiMR Write MorphoJ File” tool. Accept the defaults and click OK.

DO NOT TRY TO OPEN ANY RELATED GIS DATA UNTIL ALL PROCESSING IS COMPLETE

Once the process is complete, if you wish to create Procrustes points (this version solely supports stemmed points), run the “GLiMR Compute Stemmed Point Landmarks” tool in ArcCatalog. Accept the defaults and click OK.

Geodatabases will be created in the “c:\GLiMR\GLiMR_GDB” directory for each .xyz file, and an MXD file will be created for each .xyz file in the “c:\GLiMR\GLiMR_MXD” directory. If you see broken links when opening an .MXD file, click on the exclamation point, and then set the data source to the appropriately named feature class within the geodatabase representing the projectile point you were trying to view. A .tps file for Procrustes morphometric analysis should be generated in the GLiMR_Output subdirectory.