**How to Use the SomerStat Geolocating Scripts**

Welcome to the SomerStat Geolocating Scripts guide. This document is intended to help non-technical users run the scripts designed to geolocate addresses or latitude/longitude pairs. The scripts will process your data and provide detailed geolocation information, including Federal Information Processing Standards (FIPS) codes, census blocks, wards, precincts, and neighborhoods.

**Getting Started**

**Step 1: Setup**

1. **Download and Extract Files:**
   * Ensure that you have downloaded and extracted the entire SomerStat-Geolocating-Scripts folder to a location on your computer.
2. **Install R 4.4.0:**
   * The setup files for R 4.4.0 are included in the SETUP folder.
   * Double-click the Download and Install R 4.4.0.bat file to automatically install R. This will ensure that all the necessary dependencies are in place for the scripts to run.

**Step 2: Preparing Your Input Files**

1. **Input Folder:**
   * Place your CSV file(s) containing either addresses or latitude/longitude coordinates into the INPUT folder.
2. **File Naming Convention:**
   * Ensure your input file has a .csv extension.
   * If you are geolocating addresses, your file should contain an ‘address’ column. The script will accept ‘address’, ‘Address’, or ‘ADDRESS’.
   * If you are geolocating latitude/longitude pairs, your file should contain ‘lat’ and ‘long’ columns. It will only accept exactly ‘lat’ and ‘long’.

**Step 3: Running the Scripts**

1. **Run the Batch File:**
   * Double click the geolocate\_using\_address\_or\_lat\_long.bat file.
2. **Processing:**
   * The script will process your file(s) and provide real-time updates in the command prompt window.
   * Once the processing is complete, your geolocated file will be saved in the OUTPUT folder. The files that were in the INPUT folder will be moved to the FILES\_ALREADY\_GEOCODED folder in the INPUT folder.

**Step 4: Reviewing the Results**

1. **Output Folder:**
   * Open the OUTPUT folder to find the geolocated file. The file name will be the same as the input file.
2. **Verify the Results:**
   * Open the output CSV file using your preferred spreadsheet application to review the geolocation details.
   * The output file will include columns for the matched address, match score, latitude, longitude, block codes (2010 and 2020), and additional geographical information such as wards, precincts, and neighborhoods.

**Frequently Asked Questions**

**Q: What if I encounter an error?**

* Ensure that your input files are correctly formatted and placed in the INPUT folder.
* Make sure you are using the correct batch file (.bat) based on your input data (addresses or lat/long).
* If the problem persists, please reach out to [somerstat@somervillema.gov](mailto:somerstat@somervillema.gov) for more help.

**Q: Can I run the script on multiple files at once?**

* Yes, every file in the INPUT file will be attempted to be geocoded.

**Q: What if my computer doesn’t have R installed?**

* The SETUP folder includes everything you need to install R 4.4.0. Simply double-click the Download and Install R 4.4.0.bat file, and the installation will run automatically.