

## Introduction:

This tool provides the ability to calculate one-way commuter time and distance. The use of this tool requires an ArcGIS Online (AGOL) subscription and will consume credits when run. See [ArcGIS Online](#) and [Credits](#) to learn more.

**1) Export commuter/employees' home and work addresses to a CSV file. Refer to the sample found [HERE](#), "NewHire.csv", for required formatting.**

## **2) Download the Script to Geocode and Route Data:**

- a) From GitHub (<https://github.com/cadgs/telework/tree/main/Template/Esri%20Python%20script>) download the following files: config.json, Logger.py, and Telework.py
- i) To download a file, right-click on the name and choose, "Save link as...".

Input	Sample input file
Output	Sample Input and Output files
Logger.py	Python scripts to geocode and get route data
Telework.py	Python scripts to geocode and get route data
config.json	Configuration file

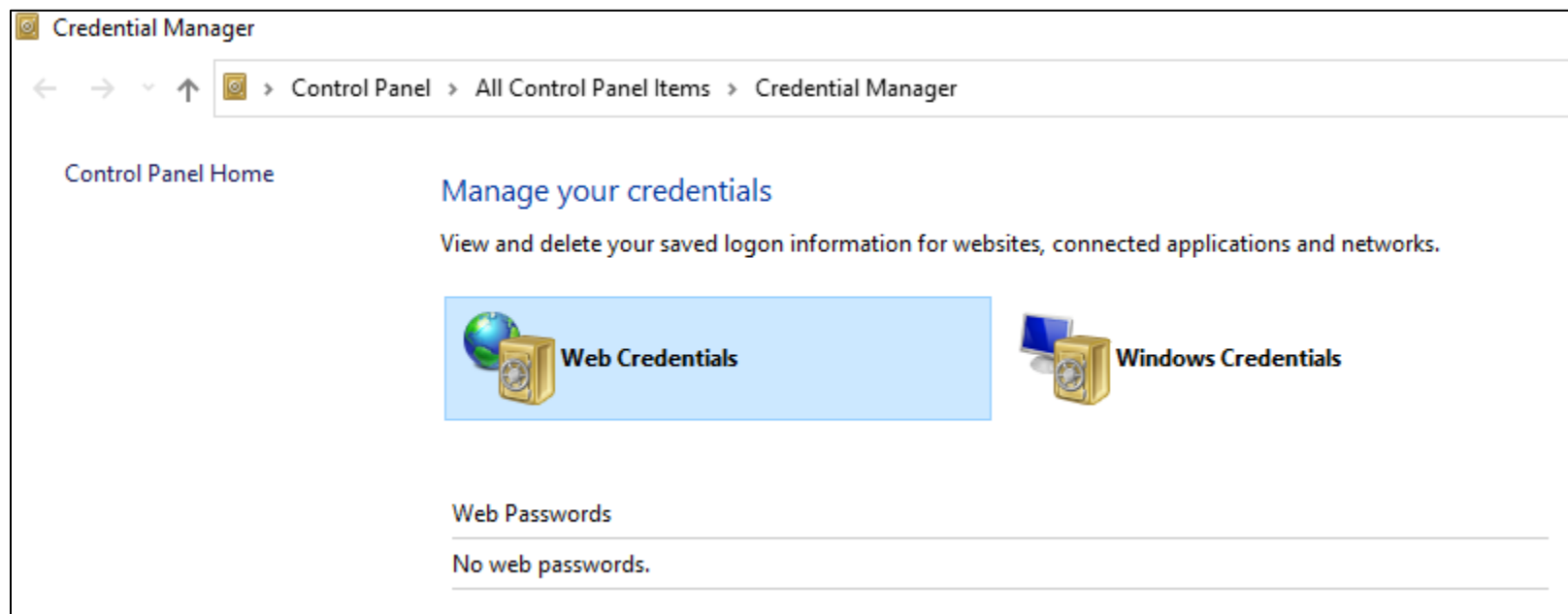
- b) Place all three files in the same folder.

**3) Make the following changes to the Config.json file in order to run the tool:**

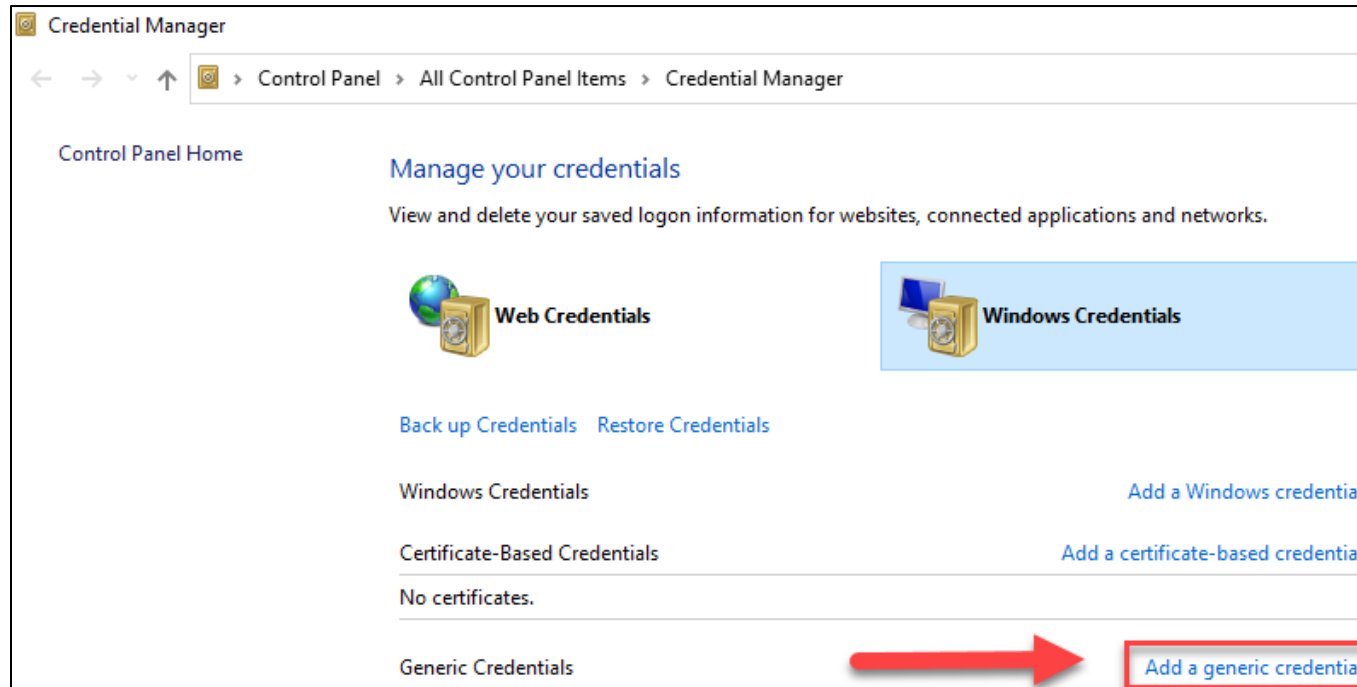
```
config.json
1 {
2     "profile": "GISRouting",
3     "username": "YourOwnArcGISOnlineUsername",
4     "worker_info_csv": "D:\\Class\\GIS\\Input\\NewHire.csv",
5     "employee_number_field": "EMPLOYEE_NUMBER",
6     "work_address_field": "WORK_ADDRESS1",
7     "work_city_field": "WORK_CITY",
8     "work_state_field": "WORK_STATE",
9     "work_zip_field": "WORK_ZIPCODE",
10    "home_address_field": "HOME_ADDRESS1",
11    "home_city_field": "HOME_CITY",
12    "home_state_field": "HOME_STATE",
13    "home_zip_field": "HOME_ZIPCODE",
14    "csv_out": "D:\\GIS\\Output\\output.csv",
15    "log_level": "INFO"
16 }
```

a) To update the “profile” and “username” in the code perform the following:

i) Open Windows Credential Manager:



ii) Choose “Add a generic credential”:



iii) Provide the following information:

- (1) For Internet or network address, create a name. This will be used in the “profile” section of the code found in step 2a. Choose a name that makes sense for your organization.
- (2) For User name, use the ArcGIS Online (AGOL) user name of the account you want to use. This is the “username” that you’ll provide in step 2b.
- (3) For Password, enter the corresponding password to the AGOL account used the step above and hit OK.

- b) **Lines 4 and 14** – \*\*Remember to put double backslashes “\\” in the path name. For example, “D:\\GIS\\Output\\output.csv”
  - i) **Line 4** “worker\_info\_csv”: Update the path to where your input CSV file is located.
  - ii) **Line 14** “csv\_out”: Update the path to the location the export file should be placed. The first time you run the tool, you will need to create a blank CSV file with the appropriate headings and place it in the output location. After the tool has been run once, the table will be overwritten. Note: you will not be prompted to confirm the overwrite, so you will need to create a backup copy of your spreadsheet if you wish to retain it.
  - iii) Sample spreadsheets, “Input” and “Output”, can be downloaded from:  
<https://github.com/cadgs/telework/tree/main/Template/Esri%20Python%20script>
- c) **Line 15** – If you want a detailed log file, use “DEBUG”. For a more generic log, that doesn’t contain embedded employee addresses, use “INFO”.

#### 4) FYI – no code changes needed:

- a) **Telework.py File:**
  - i) There are no code changes needed for the Telework.py file. If you have ArcGIS Pro installed on your computer then, to run the Tool, Right-click on Telework.py and choose, “Run with ArcGIS Pro”. If you don’t have ArcGIS Pro installed on your computer, then you’ll need to Install Python3 and run the script from the command line.
- b) **Logger.py File:**
  - i) There are no code changes needed for the Logger.py file.