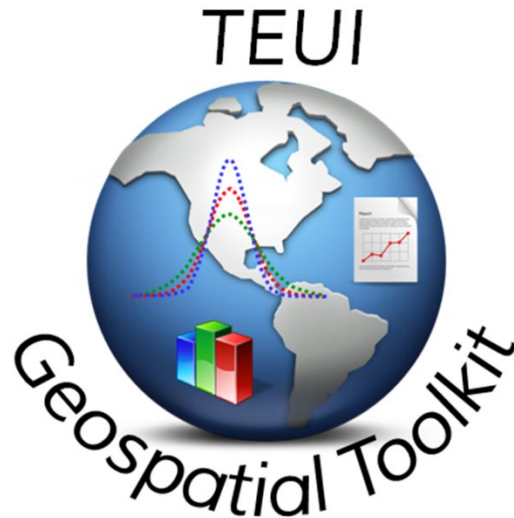


# TEUI Command Line Tool



The TEUI Command Line Tool is intended for those who want to include some of the TEUI functionality in their own scripts.

## What are the computing requirements to use the TEUI Command Line Tool?

- ArcGIS 10.0 or above
- At least 4 GB free space. More space may be needed depending on the project size.

## How do I download the TEUI Command Line Tool?

- The TEUI Command Line Tool can be downloaded from the following web address: <https://www.fs.usda.gov/about-agency/gtac/teui>
- Scroll down to the downloads section, download the zipfile, and extract it to a local drive.

### Downloads

#### [TEUI Geospatial Toolkit 5.8](#)

##### TEUI Toolkit 5.8

ArcMap 10.5 Add-In installation package. TEUI Toolkit 5.8 is only compatible with ArcGIS versions 10.5 and above. Requires ArcGIS Spatial Analyst extension. [Zipfile, 362MB.](#)

##### TEUI Commandline Toolkit 5.8

For using the Toolkit outside of ArcMAP. For use with custom scripts. Only compatible with ArcGIS versions 10.0 and above. Requires ArcGIS Spatial Analyst extension. [Zipfile](#)

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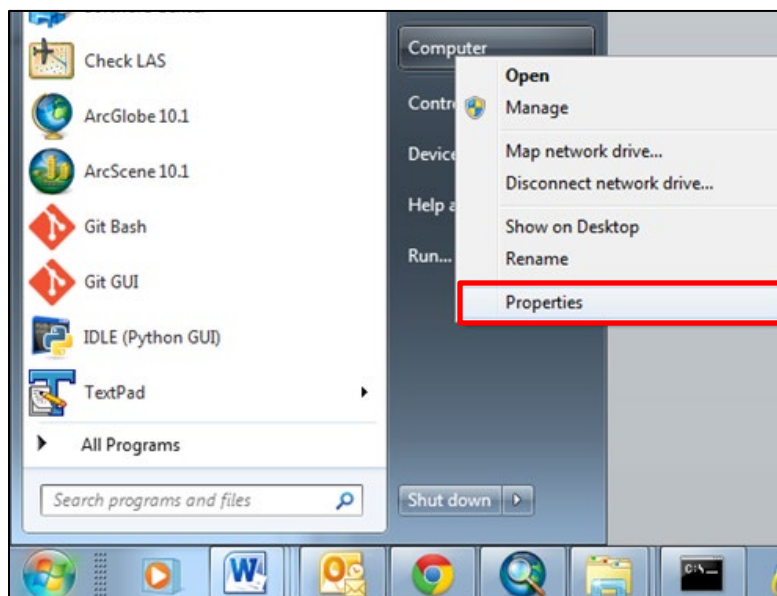
## Part 1: (Optional) Adding TEUI.Commandline.exe to the environment variables.

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You can make an adjustment on your computer so it's easier to use the TEUI Command Line Tool. In this section we will add the tool's directory to the search path for your computer. When you have completed this step you will be able to run the tool from any directory on your computer. This is an advantage when you have a large project.

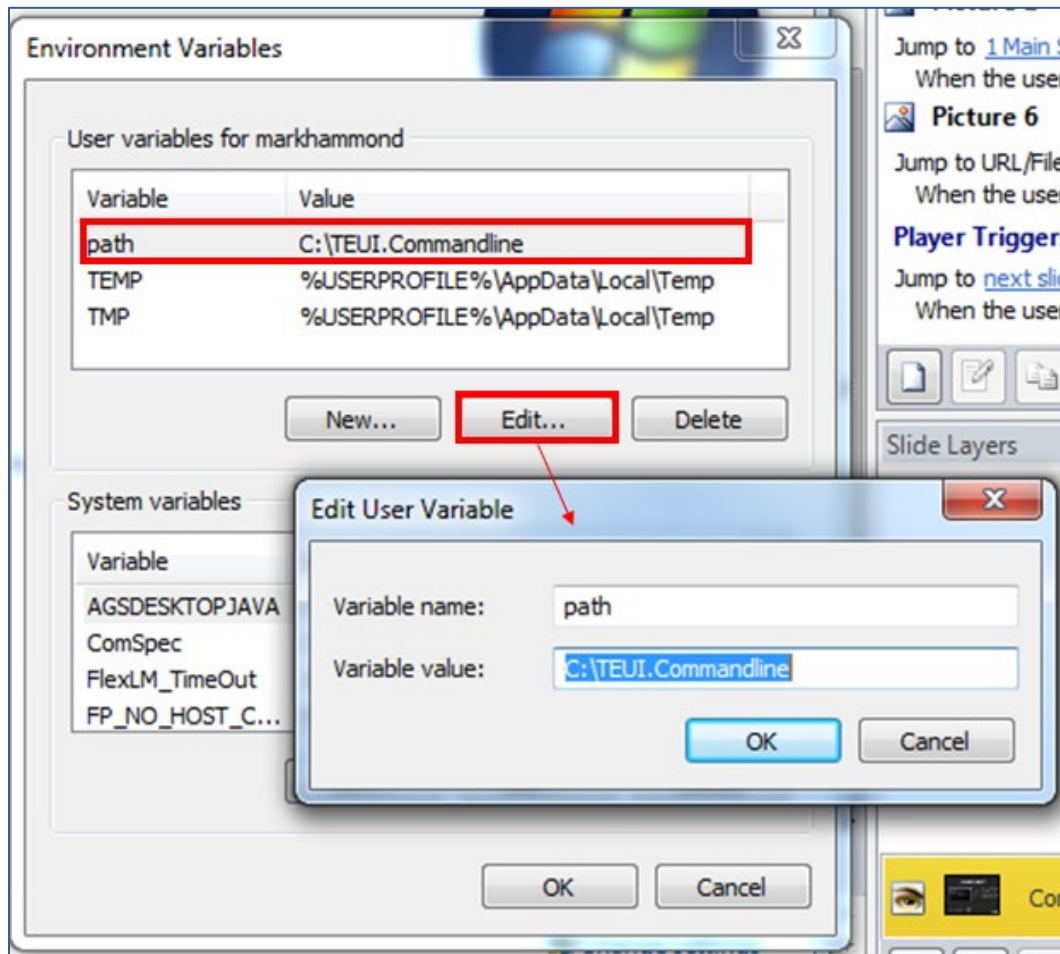
*Without administrative privileges you will only be able to edit your (the user's) Environmental Variables and not the System variables. If you want the environmental variable edit to be applied to the system for any user you must make the edits with administrative privileges in the System variables section. In this case add c:\TEUI.Commandline to the end of the path list separated from the other paths by a semicolon (;).*

1. Open the **Start Menu** and right-click on **Computer**.
2. Select **Properties** from the drop down menu (see below).



3. Click **Advanced system settings**.
4. In the System Properties dialog click the **Environment Variables** button at the bottom of the **Advanced** tab.
5. In the Environmental Variables dialog box, ensure the Variable **path** is selected in the "**User variables for your-user-name**". If the Variable **path** is not listed, click **New...** to create it.

6. Click **Edit** (see below).



7. Enter the directory for TEUI.Commandline.exe (if there is already a path value then just append to it, separated by a semicolon (;)) then click **OK**.

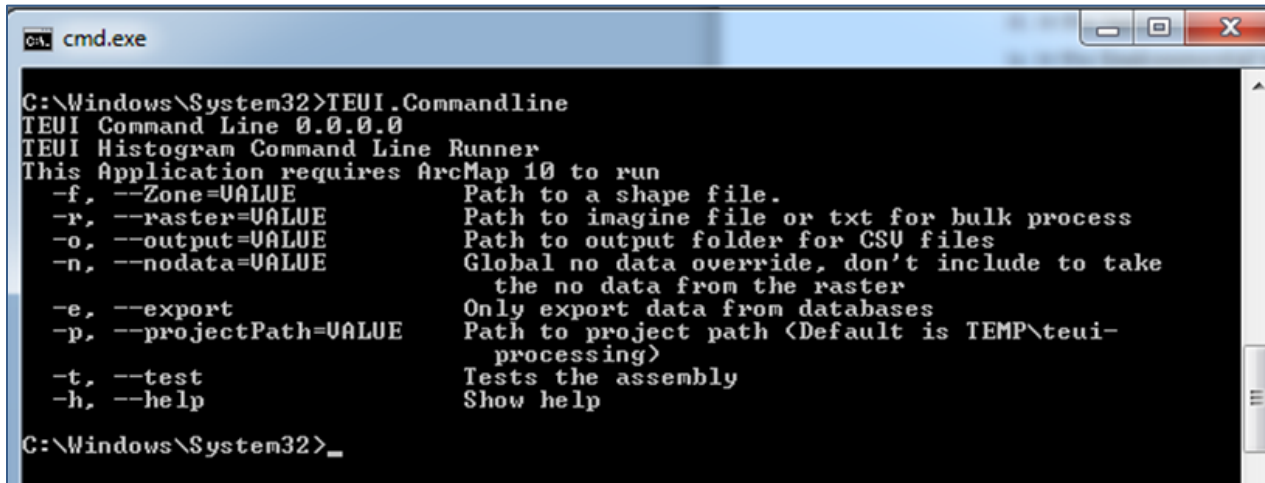
8. Click **OK** in the remaining dialog boxes to close them and retain the edit. Now let's quickly test the new environmental variable.

9. Open a Command Prompt (**Start Menu | All Programs | Accessories | Command Prompt**) and ensure you are **not** in the **C:\TEUI.Commandline** directory (you may see something like **C:\Windows\System32>**).

10. Type **TEUI.Commandline** in the Command Prompt and press **Enter**.

- You should now see a description of the TEUI command line executable "TEUI.Commandline.exe" (see following graphic).
- If the command prompt did not recognize TEUI.Commandline as a command, the edits you made to the path environmental variable were not successful. If this is the

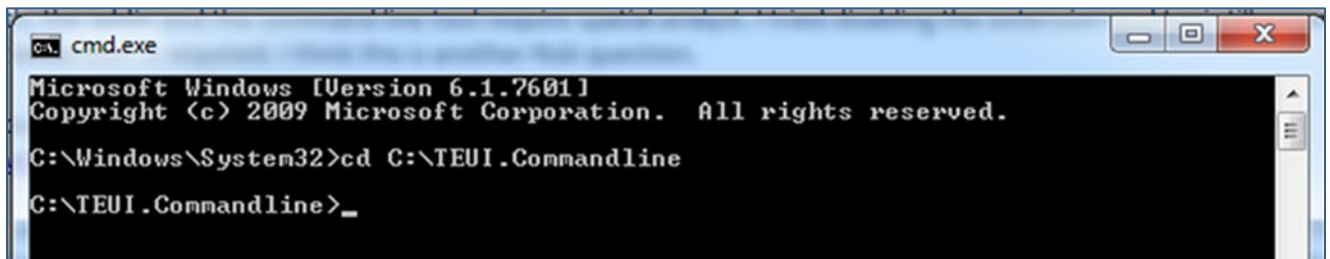
case you can repeat the above steps and try again, ask the course instructor, or contact your IT support for further assistance (see below).



```
cmd.exe
C:\Windows\System32>TEUI.Commandline
TEUI Command Line 0.0.0.0
TEUI Histogram Command Line Runner
This Application requires ArcMap 10 to run
-f, --Zone=VALUE          Path to a shape file.
-r, --raster=VALUE       Path to imagine file or txt for bulk process
-o, --output=VALUE       Path to output folder for CSU files
-n, --nodata=VALUE       Global no data override, don't include to take
                          the no data from the raster
-e, --export              Only export data from databases
-p, --projectPath=VALUE  Path to project path (Default is TEMP\teui-
                          processing)
-t, --test               Tests the assembly
-h, --help               Show help
C:\Windows\System32>_
```

## Part 2: Running the TEUI.Commandline.exe command

1. Open a DOS command prompt (**Start Menu | All Programs | Accessories | Command Prompt**).
2. If you skipped section 1 then you'll need to change the directory to where the TEUI.Commandline.exe is located. Type in **cd C:\TEUI.Commandline** (or wherever you placed that folder) then hit **Enter** (see below).



```
cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Windows\System32>cd C:\TEUI.Commandline
C:\TEUI.Commandline>_
```

Now let's use the command prompt to run a simple TEUI command to generate map unit summary stats for a DEM layer. The components of the command are as follows:

- **TEUI.Commandline**: The TEUI Command Line executable (there is no need to include the '.exe' in the command prompt).
- **-r"C:\TEUI\_Training\Rasters\DEM.img"**: The DEM file that the statistics are generated from.
- **-f"C:\TEUI\_Training\Analysis\_features\soilmu\_a\_wa680.shp"**: The polygon shapefile that will be used to organize the DEM summary stats into map units.
- **-o"C:\output"**: The output .csv file path.

When using the command prompt, remember to use back slashes (\) for file paths and place a **single space** between each section of the command. An easy way to avoid typos when entering file paths is to navigate to the file in Windows, copy the path, then paste it by right clicking in the command prompt.

You can use the up and down arrows to recall previous commands executed in the same command prompt window. This is very useful when you mess up the syntax and only need to change a character or two. You can edit the commands by moving the cursor with left and right arrows and using the insert key to control insert/overstrike.

3. Type in the command as you see below (**DO NOT** copy and paste), then press **Enter** (see below).

```
TEUI.Commandline -r"C:\TEUI_Training\Rasters\DEM.img" -f"  
C:\TEUI_Training\Analysis_features\soilmu_a_wa680.shp" -o"C:\output"
```

```
cmd.exe  
Microsoft Windows [Version 6.1.7601]  
Copyright (c) 2009 Microsoft Corporation. All rights reserved.  
  
C:\Windows\System32>cd C:\TEUI.Commandline  
  
C:\TEUI.Commandline>TEUI.Commandline -r"C:\TEUI_Training\Exercise_data\Rasters\DEM.img" -f"C:\TEUI_Training\Exercise_data\Analysis_features\soilmu_a_wa680.shp" -o"C:\output"  
TEUI Command Line 0.0.0.0  
Deleteing files  
Feature: C:\TEUI_Training\Exercise_data\Analysis_features\soilmu_a_wa680  
Raster: C:\TEUI_Training\Exercise_data\Rasters\DEM.img  
Generating Histogram  
Generating histogram done  
Generating output C:\output  
Finished  
  
C:\TEUI.Commandline>
```

4. Navigate to the output directory and inspect the **DEM.csv** file (see below).

| Feature  | FeatureId | Raster | RasterBan | Mean     | Majority | MajorityP | Maximum | Minimum | Minority | Range |
|----------|-----------|--------|-----------|----------|----------|-----------|---------|---------|----------|-------|
| soilmu_a | 1897      | DEM    | 1         | 1598.816 | 1617     | 0.024213  | 1650    | 1523    | 1523     | 127   |
| soilmu_a | 1795      | DEM    | 1         | 1577.725 | 1547     | 0.008905  | 1734    | 1428    | 1428     | 306   |
| soilmu_a | 378       | DEM    | 1         | 1659.151 | 1642     | 0.033846  | 1698    | 1613    | 1614     | 85    |
| soilmu_a | 1396      | DEM    | 1         | 1370.566 | 1361     | 0.021201  | 1427    | 1313    | 1313     | 114   |
| soilmu_a | 526       | DEM    | 1         | 1455.11  | 1437     | 0.020161  | 1558    | 1388    | 1390     | 170   |

Now that you know how to run a TEUI command in the DOS command prompt, you can create batch files to efficiently run large sets of commands.