

Soil Survey Geographic Database (SSURGO) Portal Quick Start Guide – USDA CEC Computers

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Table of Contents

1.	Overview	. 3
2.	Python Installation	. 3
3.	SSURGO Portal Installation	. 4
4.	Using SSURGO Portal	.5

1. Overview

The following sections detail the instructions for downloading and installing Python and SSURGO Portal as well as using SSURGO Portal.

This guide assumes the following:

- You are installing software on a USDA CEC computer.
- Your operating system is Windows 10 or greater.¹
- You have not already installed Python on your computer.²

2. Python Installation

To install Python, complete the following steps:

- 1. Open Software Center and search for Python.
- 2. Install Python 3.10.2 (64-bit) 3.10.2150.0.³

Software Center				– 🗆 X
USDA-OCIO-CEC				
Applications 5 Updates 3 Operating Systems	All Required Featured Filter: All Sort by: Most recent	•	python	≈ ≣ ⊞
 Installation status 	Name	Publisher	Version	Status
Options	Microsoft Visual Studio Code 1.69.2	Microsoft	1.69.2	Available
	Deep Learning Libraries for ArcGIS Pro 2.8.29751	ESRI	2.8.29751	Available
	ام Python 3.10.2 (64-bit) 3.10.2150.0	Python Software Foundation	3.10.2150.0	Installed

¹While SSURGO Portal is designed to work with Windows 10; it should also work with Windows 11 and Ubuntu.

² Python is included with ArcGIS, ArcGIS Pro, ArcGIS Desktop, and QGIS. SSURGO Portal should still function even if one or more of these versions of Python are already installed.

³ SSURGO Portal was tested on Python 3.10 but should also work with Python 3.9 and 3.11.



3. SSURGO Portal Installation

To install SSURGO Portal, complete the following steps:

- 3. Create a folder on your C drive and name it SSURGO Portal.
- 4. <u>Click this link</u> and download the **SSURGO Portal.zip** file to the folder you just created.
- 5. Unzip the SSURGO Portal.zip file to the **SSURGO Portal** folder you created.
- 6. Double-click the **SSURGO_Portal.pyz file** to open.
- 7. Enter **p** in the CMD prompt.
- 8. When prompted, press Enter to complete initialization.
 Note: You only need to enter p in CMD the first time you run SSURGO Portal.
- 9. Double-click on the **SSURGO_Portal.pyz** a second time to open and begin using SSURGO Portal.

You should see the following screen, which indicates a successful installation:

Step 1: Select or Create a Database	Contact Us SSURGO Portal - v1.2.3.4 Your chosen database is: No Database Selected (?)
Select Database Browse	Import SSURGO Data SSURGO Data in Database
Step 2: Select Location of SSURGO Data	
Choose SSURGO Data folder Browse	
NOTE: It is strongly recommended that you only have SSURGO Data in your selected SSURGO Data folder.	
Import SSURGO Data	
Advanced Import Options	
USDA Natural Resources Conservation Service	

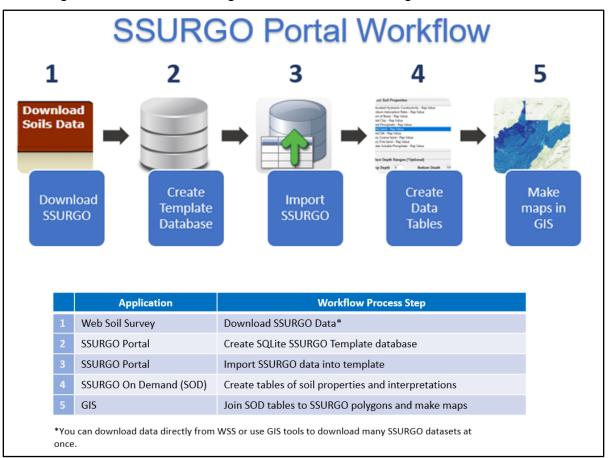


4. Using SSURGO Portal

Refer to the SSURGO Portal User Guide on the SSURGO Portal webpage for detailed user instructions.

You can also refer to the help menus within SSURGO Portal for additional information. Each window in SSURGO Portal has its own help page. You can access these by clicking the question mark icons.





The image below illustrates the general workflow for using SSURGO Portal.



To begin using SSURGO Portal, complete the following steps:

1. Download **SSURGO data** from the <u>Web Soil Survey (WSS)</u> webpage under the Download Soils Data tab.

DA United States Department of Agriculture 9 of 9 of Natural Resources Conservation Service
ontact Us Subscribe 🗟 Archived Soil Surveys Soil Survey Status Glossary Preferences Link Logout Help
Area of Interest (AOI) Soil Map Soil Data Explorer Download Soils Data Shopping Cart (Free)
Download Soils Data for
Your AOI (SSURGO)
Soil Survey Area (SSURGO)
U.S. General Soil Map (STATSGO2)
Download SSURGO Template Databases

- **Note:** You can also download data using the SSURGO Bulk Downloader GIS tool for ArcGIS Pro or QGIS. These tools rapidly batch download many SSURGO packages at one time. The tools and instructions are available on the **SSURGO Portal webpage**.
- 2. Open SSURGO Portal.
- 3. Click Step 1: Select or Create a Database.

SSURGO Portal × +				-	0	×
← C () localhost:8083/SSURGOPortalU		ð	$\forall_{\mathscr{G}}$	to	۲	
Step 1: Select or Create a Database	SSURGO Portal - v0.1.0.22 Your chosen database is: No Database Selected					+
Select Database Browse	Import SSURGO Data SSURGO Data in Database					
Step 2: Select Location of SSURGO Data						
Choose SSURGO Data folde Browse						
NOTE: It is strongly recommended that you only have SSURGO Data in your selected SSURGO Data folder.						
Import SSURGO Data Advanced Import Options						



4. Click Step 2: Select Location of SSURGO Data.

🗖 🗟 SSURGO Portal 🛛 🗙 🕂			-		×
C 🛈 localhost:8083/SSURGOPortalUI	Ô	\forall_{θ}	τô	۲	
Step 1: Select or Create a Database	Contact Us SSURGO Portal - v0.1.0.22 Your chosen database is: No Database Selected ⑦				+
Select Database Browse	Import SSURGO Data SSURGO Data in Database]			
Step 2: Select Location of SSURGO Data					
Choose SSURGO Data folde Browse					
NOTE: It is strongly recommended that you only have SSURGO Data in your selected SSURGO Data folder.	0				
Import SSURGO Data					
Advanced Import Options					

Note: SSURGO data folders will either have a 5-character name, starting with two letters and followed by three numbers (e.g. OR021) or they will have names that start with wss_aoi. Below is an example of a correct file path. Note, the folder names have the typical format for SSURGO data packages.

Set File Path of SSURGO Data	()	
C: > SSURGO Portal > SS	SURGO >	
Q		
Name 🖨		
DR011		
CR015		
OR021		
wss_aoi_2023-04-18_13-45-20		
Note: SSURGO downloads are delive presented on this screen.	ered in zip files. You must unzip them to a	make

If you see folders named spatial and tabular in the table, you probably have gone too far in the file path and need to go back one folder.



5. Import SSURGO Data.

Change or Create a Database	Contact	Us	Yo	<u>SSURGO Portal - v0.</u> ur chosen database is: SQLite SSURO		0	
SQLite SSURGO Template. Browse		Select All Button	/ ତ[Import SSURGO Data	SSURGO Data in Dat	abase	
SSURGO Browse		older Name 🖨	Area Symbol \$	Area Name 🖨	Folder SSURGO Version Date 🖨	Exists in Database 🖨	Database SSURGO Version Date 🖨
NOTE: It is strongly recommended that you only have SSURGO Data in your	_ A	K622	AK622	Skagway-Klondike Gold Rush National Historical Park, Alaska	8/30/2022		
selected SSURGO Data folder.	Z A	K630	AK630	Nulato Hills Area, Alaska	8/30/2022		
	Z 4	K636	AK636	Bristol Bay-Northern Alaska Peninsula, North and Bordering Areas, Alaska	8/30/2022		
Import SSURGO Data		K638	AK638	Cantwell Area, Alaska	9/1/2022		
Advanced Import Options		R015	OR015	Curry County, Oregon	9/8/2022		
Advanced import options		R021	OR021	Gilliam County, Oregon	9/8/2022		

- 6. View and query contents of the populated SQLite SSURGO Template database by opening the database in any program that reads an SQLite file. GIS software and DB Browser are common choices.
 - <u>DB Browser is recommend</u> because it is essentially a license free version of the Microsoft Access application. It can be downloaded from the Software Center, and it allows you to view the contents of the database and submit SQL queries against the database. Refer to the SSURGO Portal Installation Guide – USDA CEC Computers and SSURGO Portal User Guide for more information about DB Browser. You can locate these guides on the <u>SSURGO</u> Portal webpage.
- Use SSURGO On Demand (SOD) to aggregate soils data and create tables and maps of soil properties and interpretations. Subsequently, use these tables to make thematic maps in GIS. The SOD tool and user guide is available on the SSURGO Portal webpage.