

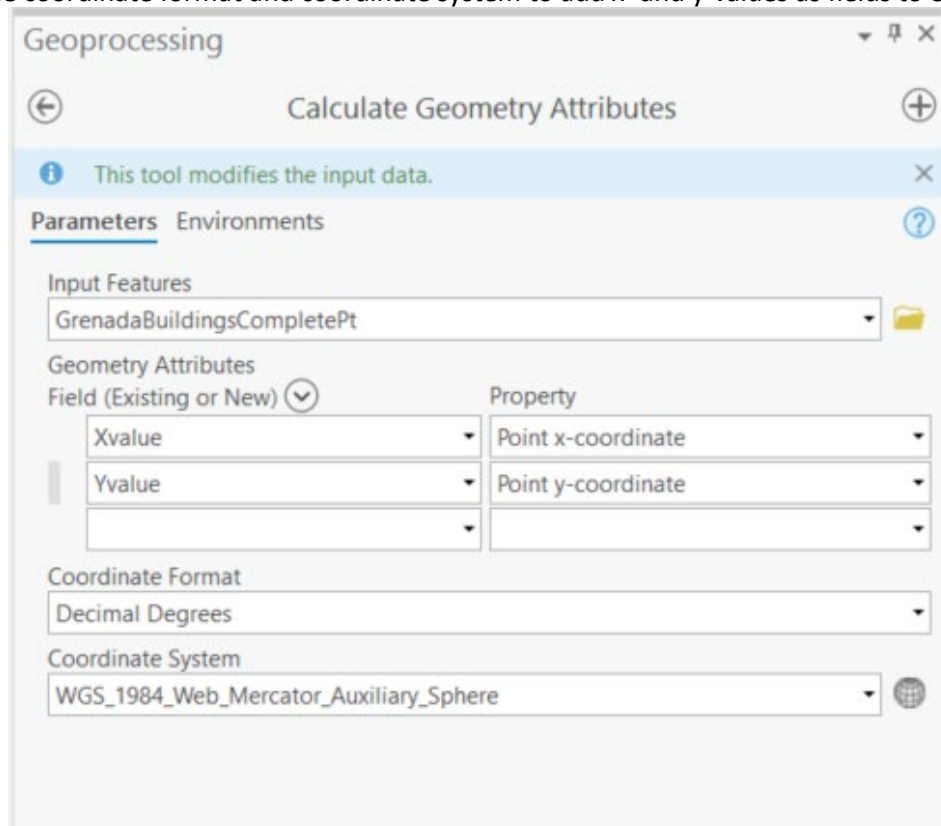
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## ArcGIS-CSPPro Integration Guide

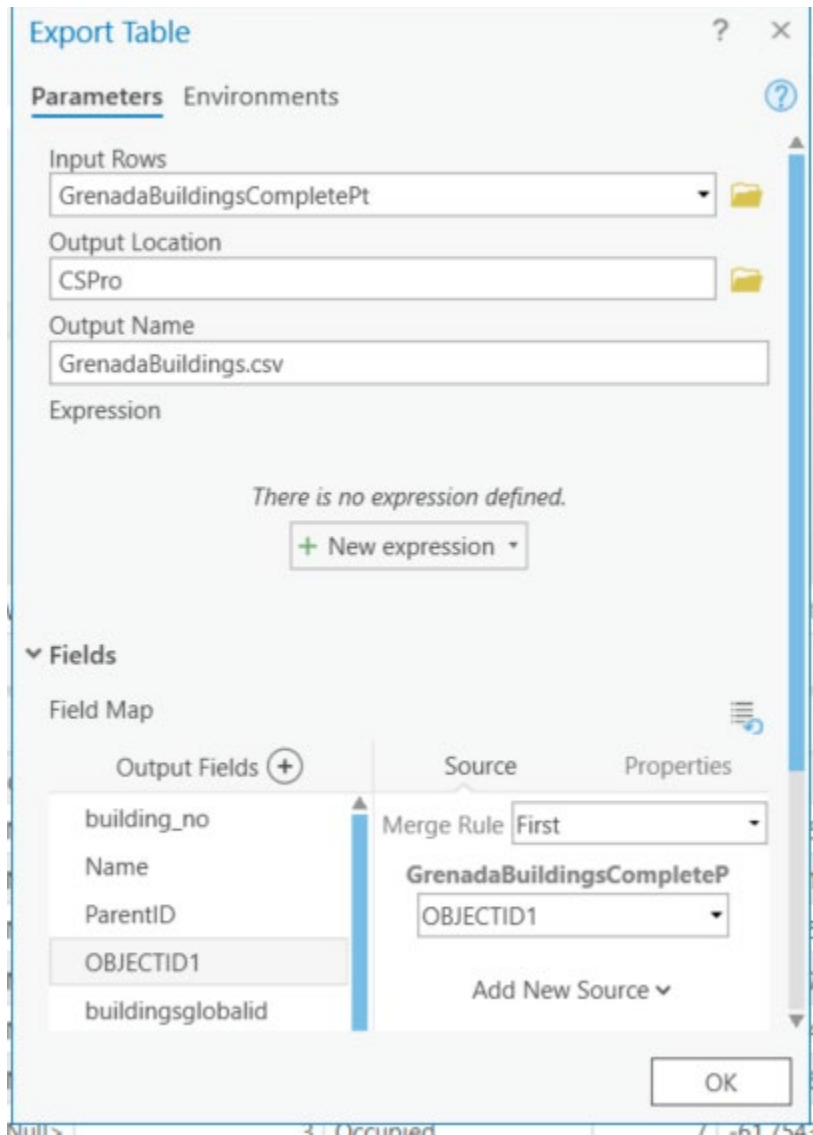
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### Scenario 1: Exporting existing data from an Esri feature service and bringing it into CSPPro

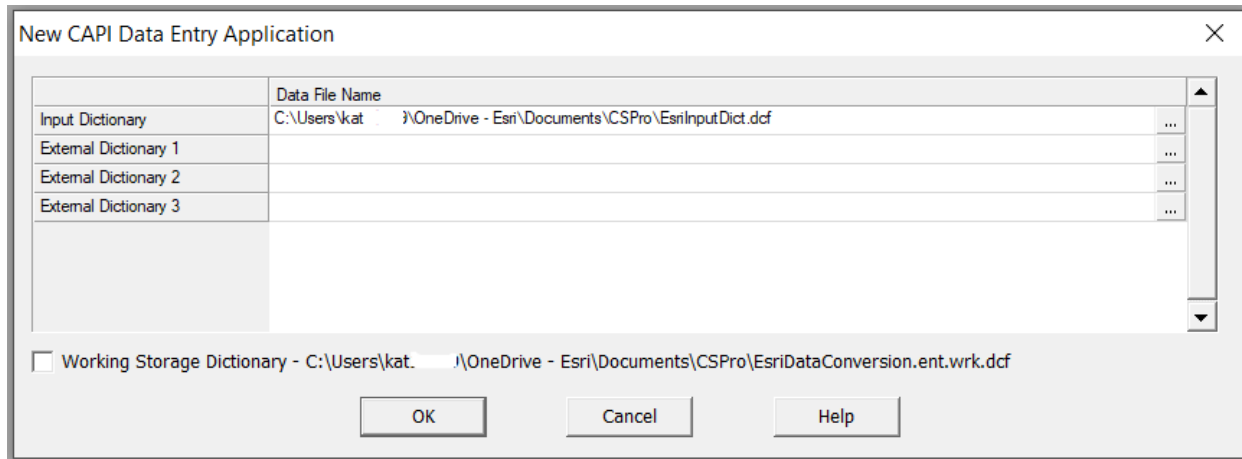
1. Open an ArcGIS Pro map and add your Esri feature service to the map through the Catalog pane or the Add Data button.
2. If your feature service is a polygon layer, run the geoprocessing tool Feature to Point. This workflow is designed to work with point features.
3. Take your point data and run the geoprocessing tool Calculate Geometry Attributes. Here you can specify the coordinate format and coordinate system to add x- and y-values as fields to each point.



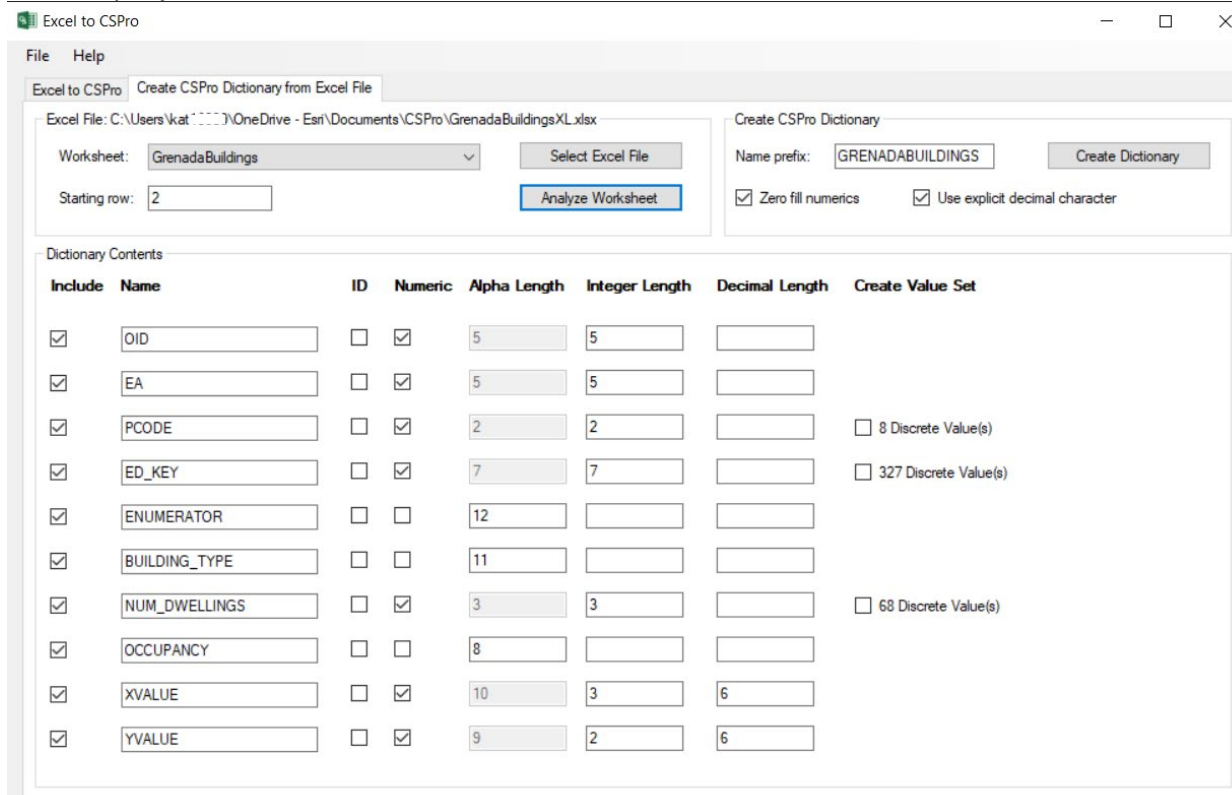
4. In the Contents pane, right-click your building points feature and select Export > Export table. Select an output location (outside a GDB) and specify an output name with the file type as .csv.



5. Open the .csv file in Microsoft Excel and save it as an .xls file.
6. Open CSPro and select **Create a new application**.
7. Select CAPI Data Entry Application as the Application Type.
8. Input a name for your data entry application.
9. Click the ellipsis button next to Input Dictionary and provide a name for your new input dictionary.

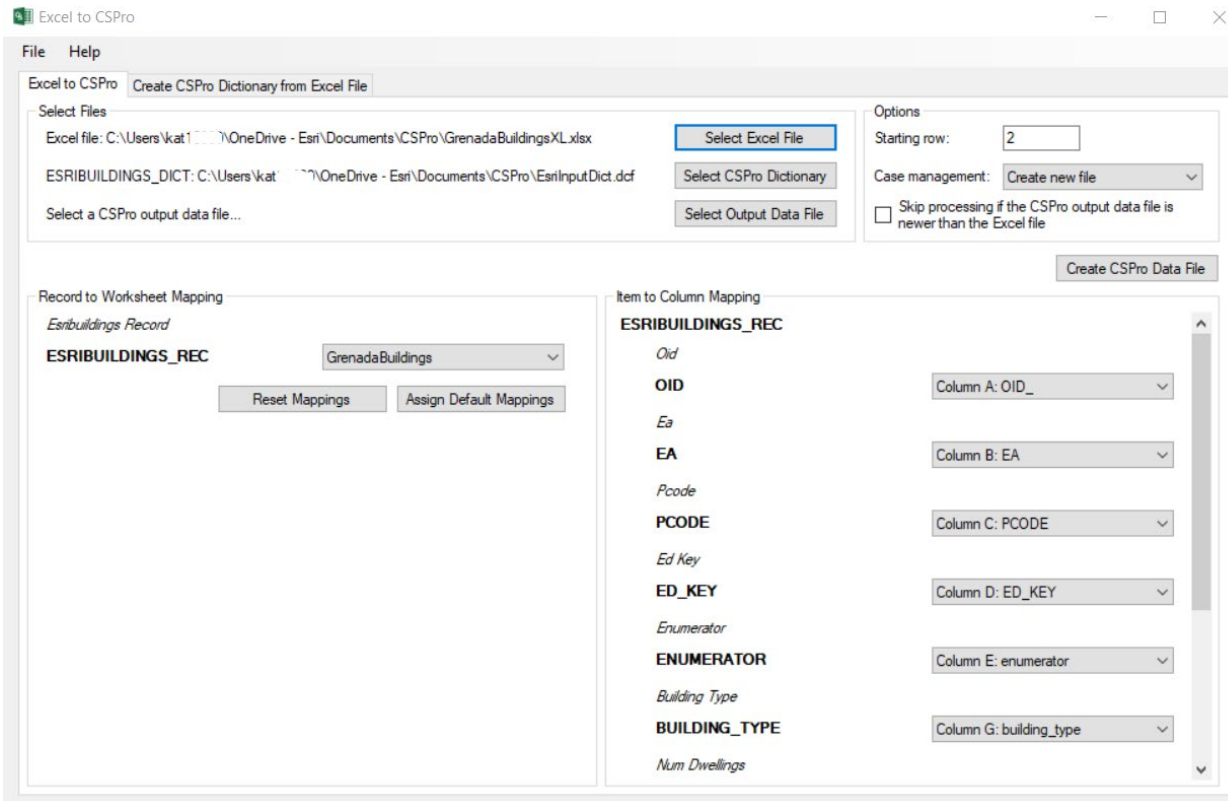


10. Click OK, and when prompted that the input dictionary name you entered does not exist, confirm that you would like to create it.
11. Click the Tools tab at the top of the CSPro Designer and select **Excel to CSPro**.
12. Click the second tab: **Create CSPro Dictionary from Excel File**.
13. Click Select Excel file and navigate to the .xls form you saved in step 5.
14. Click Analyze Worksheet.
  - a. You will see each of your Esri field names in the Dictionary Contents view. Check that the alpha, integer, and decimal length fields make sense for your dataset, and make any necessary adjustments.

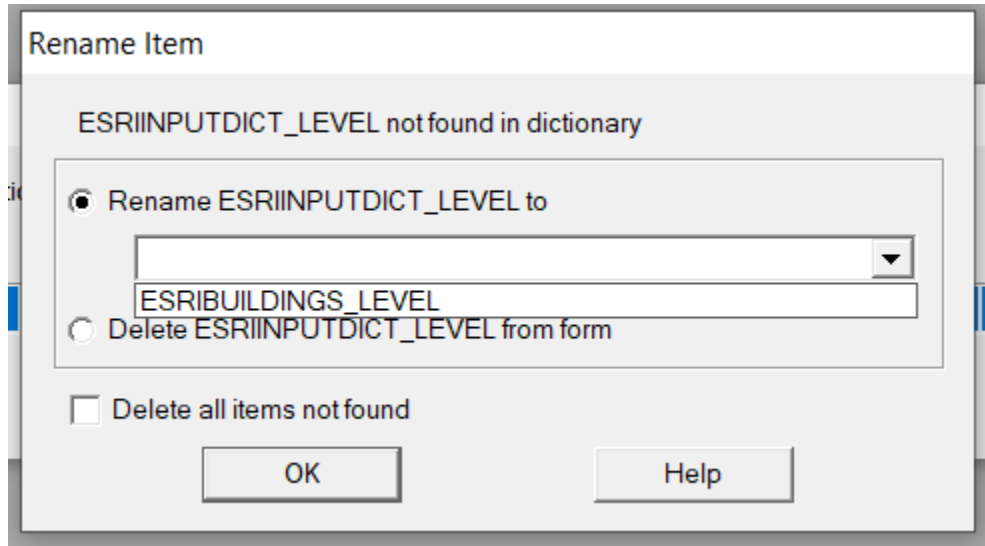


15. Select the check box in the ID column for the field that is your building ID.
16. Click Create Dictionary in the top right and select the empty input dictionary you created in step 9.

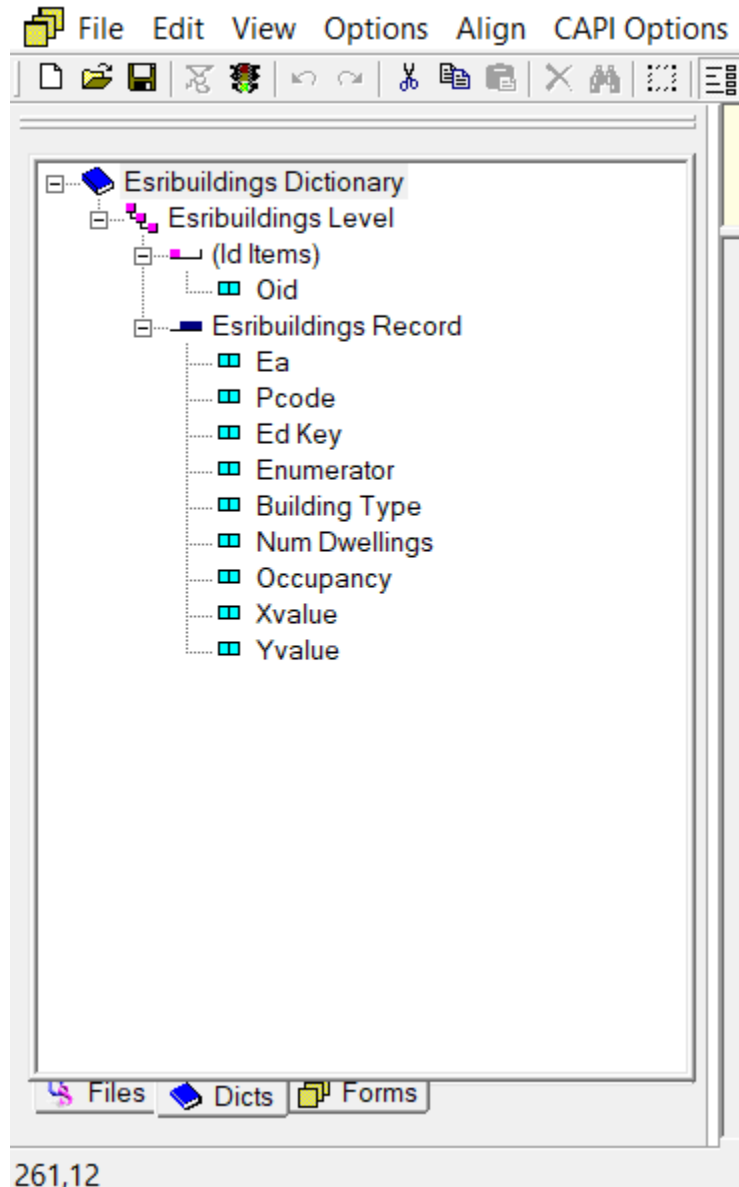
- a. Accept that you want to overwrite the existing dictionary.
17. A prompt will ask if you want to convert data with this dictionary—select Yes.
  - a. Now you will be directed to the tab **Excel to CSPro**, and you will see that the file paths of the Excel file and CSPro dictionary you just created are already filled in.



18. Click **Select Output Data File** and name your CSPro output data file.
19. Select **Create CSPro Data File**.
20. Close the Excel to CSPro window.
21. Close CSPro. Because you changed the input dictionary, you need to restart the program to see the data you imported.
22. Open CSPro—select **Open an existing application**, and select the most recent project you were just editing.
  - a. If you are prompted to rename the input dictionary, select Rename and choose the option with the same name from the drop-down menu.

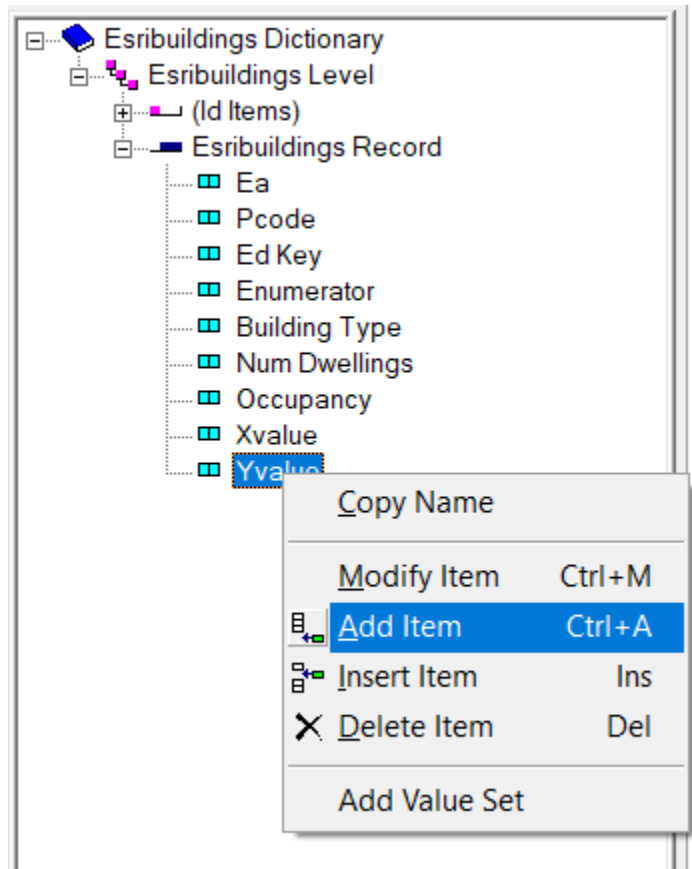


23. At the bottom left of the screen, ensure that Dicts is selected (Forms may open as the default).

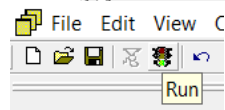
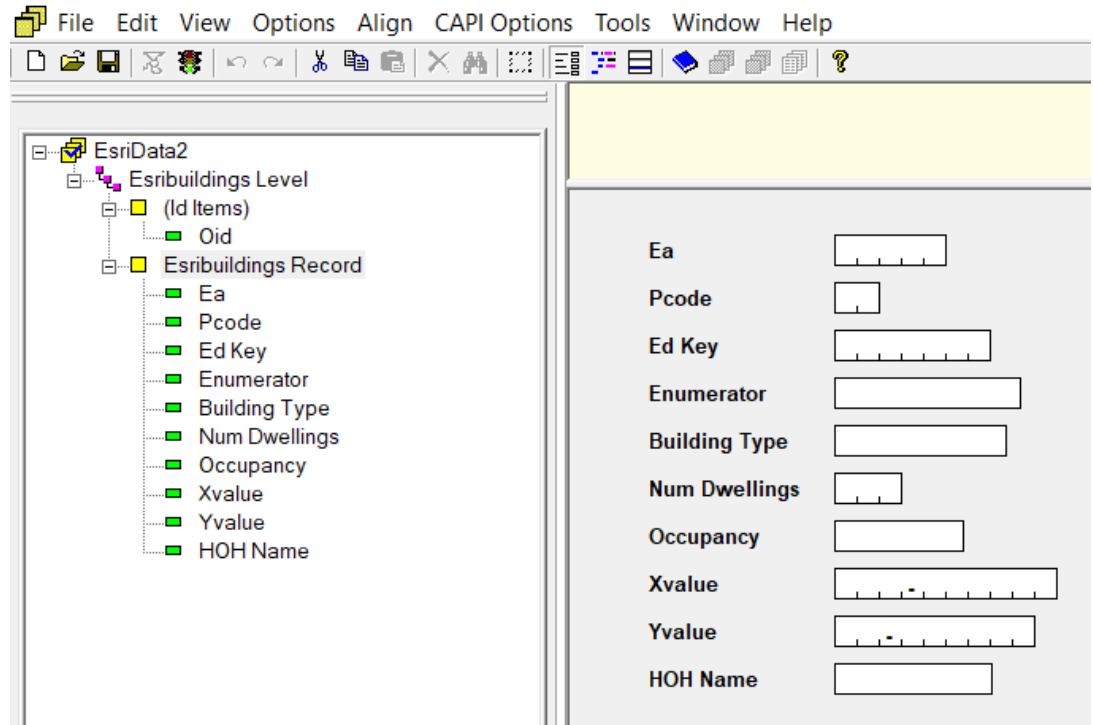


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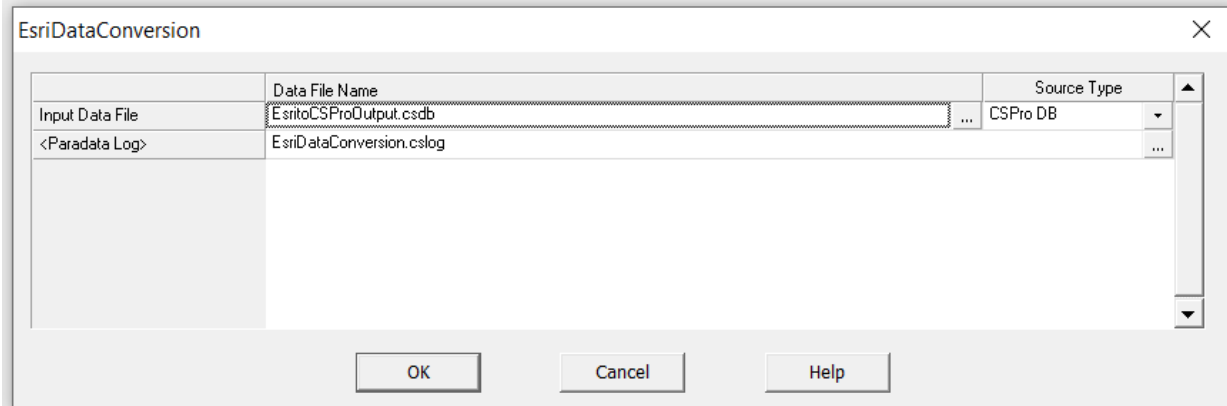
- b. Click the plus sign (+) icons in your dictionary panel to expand the different sections, and you should see all the Esri field names.
24. Right-click any of your field names and click Add Item. Input the name of a field that you want to collect in the Census of Population and Housing. Follow the instructions in the CSPro Getting Started Guide to continue to build out your dictionary in CSPro:  
<https://www2.census.gov/software/cspro/documentation/start75.pdf>



25. Click Save.
26. Click File > New > CAPI Data Entry Application.
  - a. Provide a new name.
  - b. For the Input Dictionary, select your most recent dictionary file, which will be the one you created from the Excel file and added new fields to.
  - c. When prompted with "Would you like CPro to create a set of forms for you, based on the input dictionary?" select Yes.
27. If necessary, navigate to the Forms view by clicking Forms in the bottom left.
28. The autogenerated forms will show your question fields from the Esri feature service, as well as the fields you added in CPro. Refer to the CPro User's Guide to customize the form appearance: <https://www2.census.gov/software/cspro/documentation/cspro75.pdf>



- a. For Input Data File, select the output from running the Excel to CSPro tool.



30. You now have the features from your Esri feature service in CSEntry, where you can capture additional data. Refer to the CSPro User's Guide for more on how to use this application.

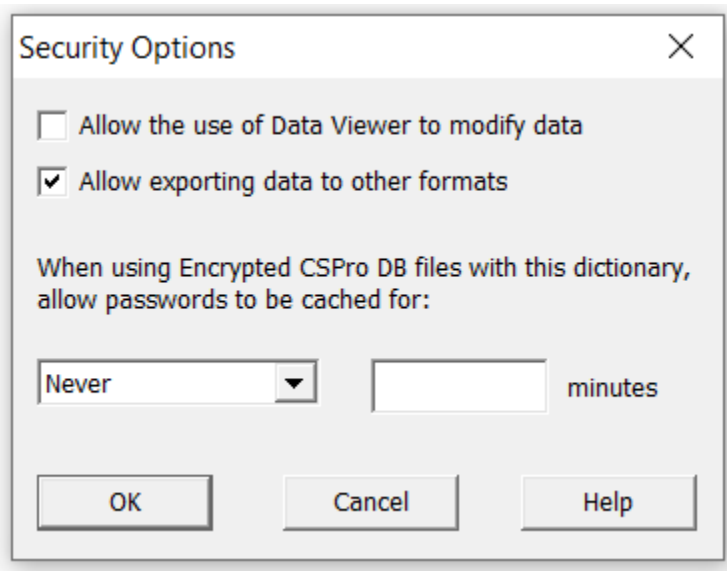


## Scenario 2: Exporting data from CPro and bringing it into an Esri feature service

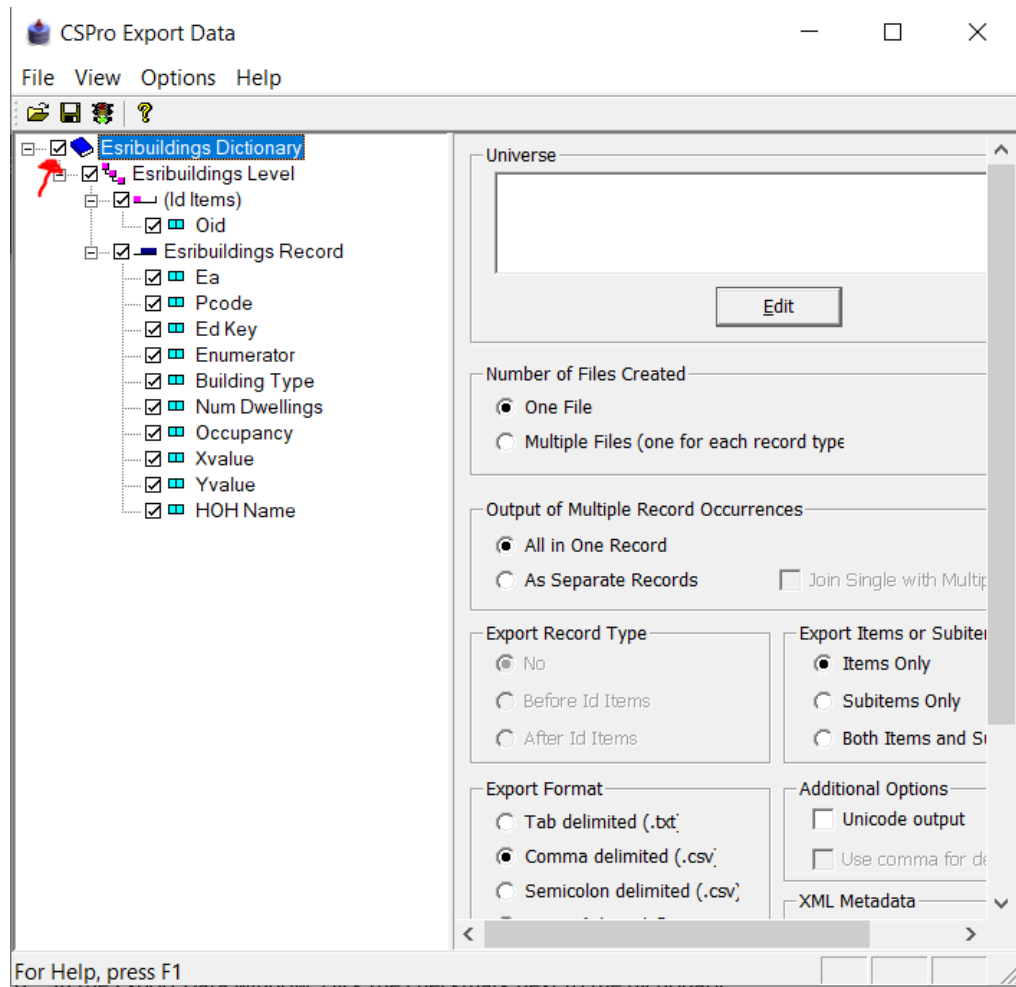
1. Open the Dictionary view by clicking the blue book icon under the menu bar:



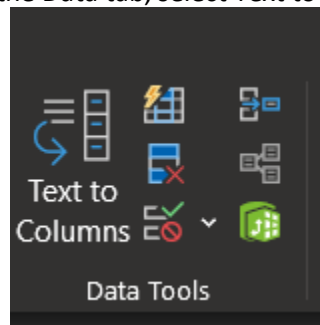
- b. If the blue book icon appears dimmed, you are in the right view.
2. Go to Edit > Security Options and select the check box next to Allow exporting data to other formats.



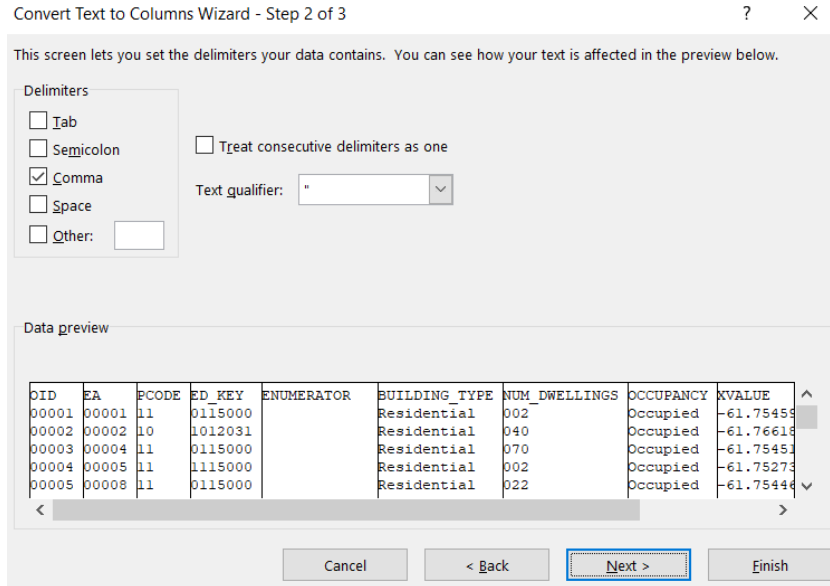
3. Click OK
4. On the menu bar, click Tools > Export Data.
5. Input your most recently saved file, which should be your CPro Dictionary file.
6. In the CPro Export Data window, select the check box next to the dictionary:



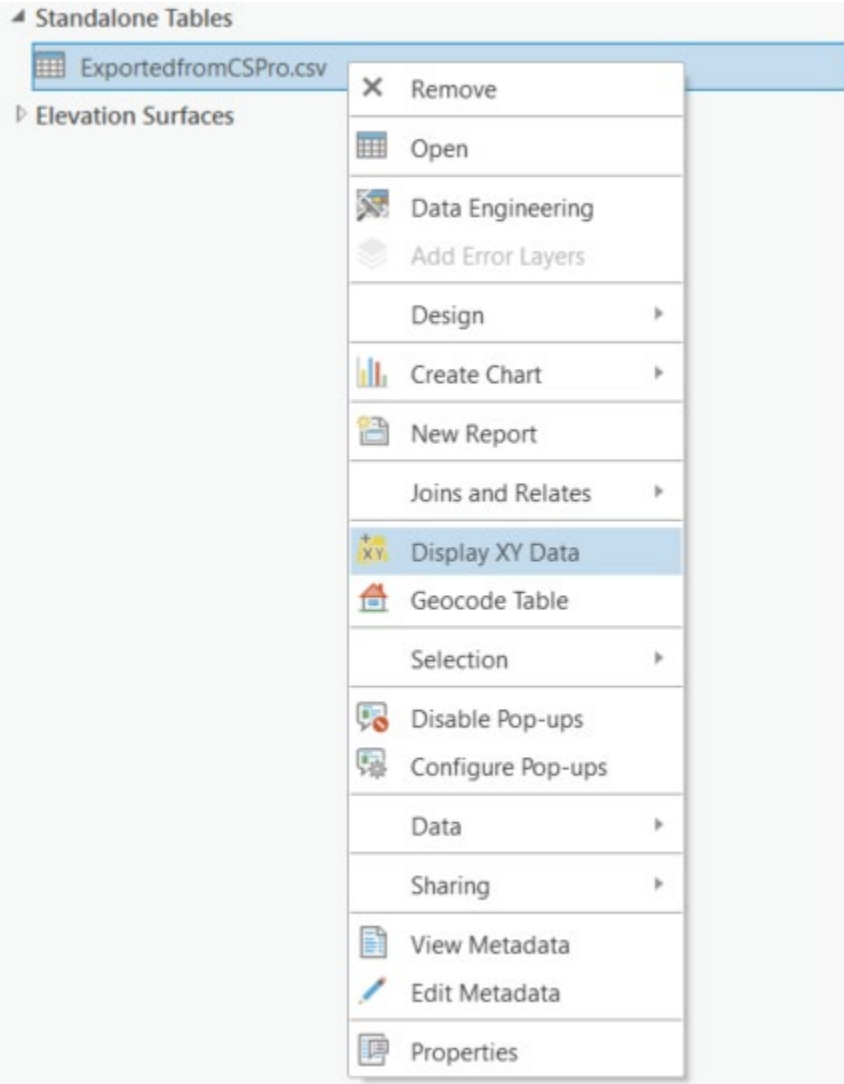
7. Select Comma delimited (.csv) under Export Format. Accept the other defaults.
8. Click Run (the third icon from the left, under the word *View*).
9. Select your most recent CSPro Data File.
10. Name the output .csv file.
11. Open the .csv file in Excel.
12. Select all of column A.
13. Under the Data tab, select Text to Columns.



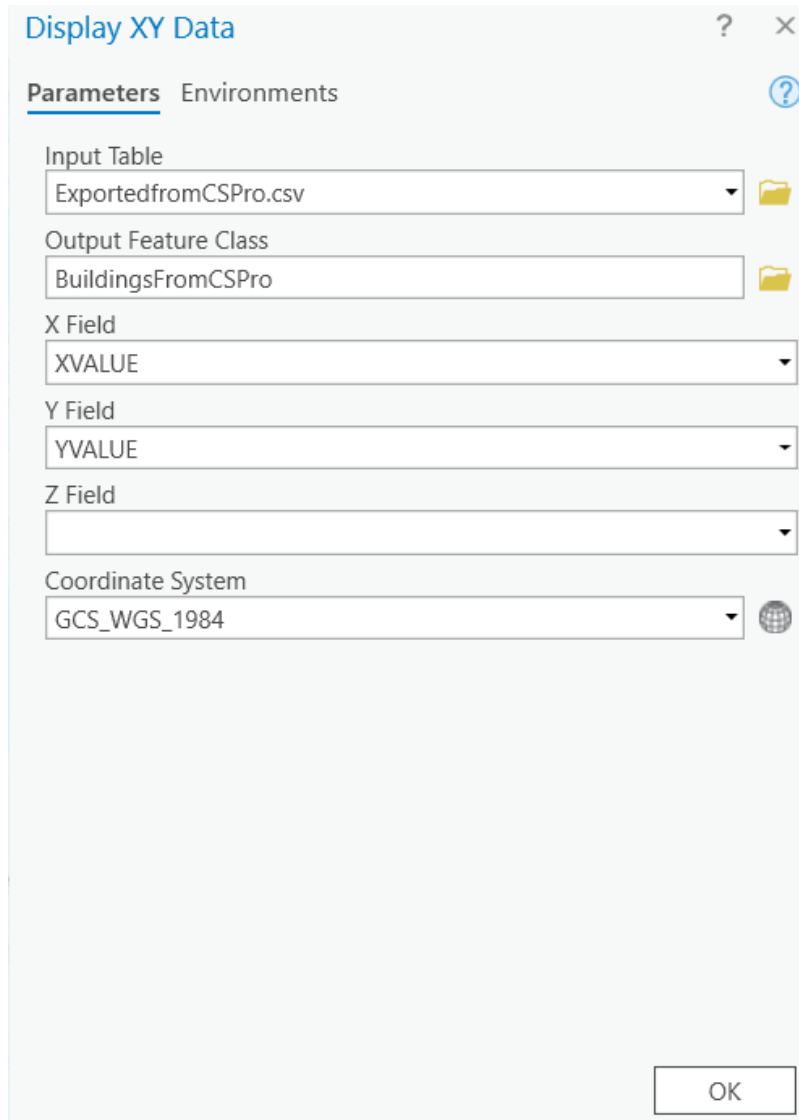
- b. For file type, choose Delimited. Click Next.
- c. For Delimiters, select Comma and deselect Tab.



- e. Click Next, accept the defaults, and click Finish.
  - f. Save the .csv file, changing the file type to .csv (Comma delimited).
14. Open a new map in ArcGIS Pro and create a file connection to the location where you just saved the .csv file.
  15. Add the .csv file to the map.
  16. In the Contents pane, right-click your .csv file and select Display XY Data.



17. In the Display XY data window, specify the X Field and Y Field values from your .csv file, and ensure the coordinate system is consistent with the coordinate system you used to generate the x- and y-values initially.



18. Now your building points will appear on the map. In the Contents pane, you will see a new point feature service, which contains all the building points and their associated data from CSPro. You can now publish this feature service to ArcGIS Online, perform spatial analysis with it, and add it to web apps such as ArcGIS Dashboards. Please refer to the additional resources below for more information on what you can do with your data in ArcGIS.

**Learn lessons for getting started with ArcGIS:** [new-user-learnngis.hub.arcgis.com/](http://new-user-learnngis.hub.arcgis.com/)

**Learn lessons for official statistics/census work:** [official-statistics-modernization-learnngis.hub.arcgis.com/](http://official-statistics-modernization-learnngis.hub.arcgis.com/)

**More on Esri feature services:** [enterprise.arcgis.com/en/server/latest/publish-services/windows/what-is-a-feature-service-htm](http://enterprise.arcgis.com/en/server/latest/publish-services/windows/what-is-a-feature-service-htm)

**How to overwrite an existing web layer** (useful if you make updates to your data and want to update your web maps/apps without reconfiguring them): [pro.arcgis.com/en/pro-app/latest/help/sharing/overview/overwrite-a-web-layer.htm](http://pro.arcgis.com/en/pro-app/latest/help/sharing/overview/overwrite-a-web-layer.htm)