

Solar PV Finder

Selecting and Reporting Solar Installation Sites in Portland



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Background



Data - Source

SOLAR OREGON

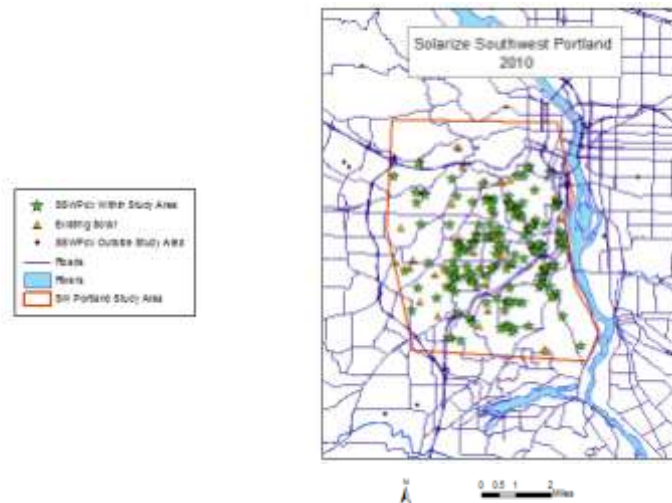
- Existing Solar Installations in Oregon
- 2010 Solarize SW Portland Installations

RLIS

- Taxlot (Nov. 2010)



Data – Study Area



Data - Conversion



Selected Lots

- SFR

Survey Area

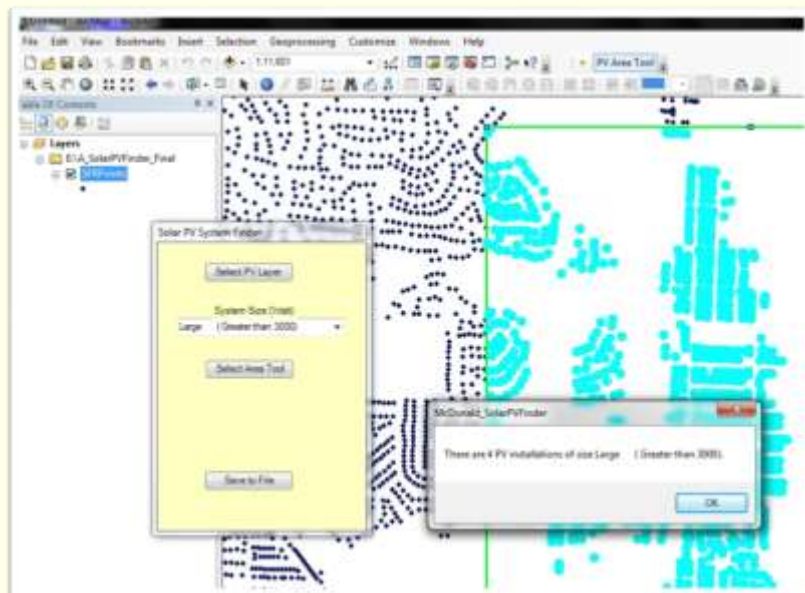
Existing Solar: 37
New Solar: 155
No Solar: 35,264
Total SFR: 35,456

Add-in Objectives

- Count number of solar installations in selected area.
- Filter by solar installation size.
- Produce report.



GUI Design



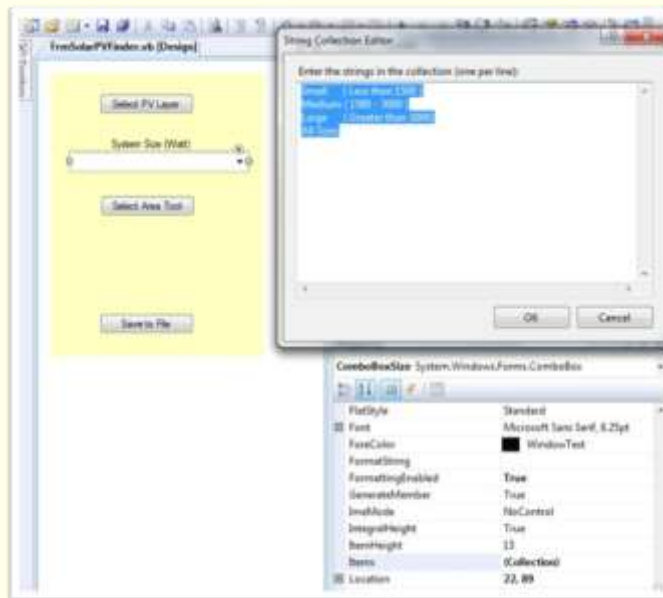
Error Checking & Results



Borrowed Code

- Lab 3 – Shortest Path (Dijkstra)
[Save File](#)
- Lab 5 – Polygon Area Tool
[Rectangle selection](#)
- Exercise 7
[Layer name & FindField](#)
- ArcObjects Library Reference
[Use tool in a Windows Form](#)

Combobox Collection



Tool in FrmSolarPVFinder

Config.esriaddinx

```
<addin language="CLR" library="McDonald_SolarPVFinder.dll" namespace="McDonald_SolarPVFinder">
  <ArcMap>
    <Commands>
      <Button id="Microsoft.McDonald_SolarPVFinder.BtnSolarPV" class="BtnSolarPV" message="Find Solar FV"
        <Help heading="Solar FV Finder">Find Solar FV Systems within selected radius and for selected s
      </Button>
      <Tool id="Microsoft.FVArea.FVAreaTool" class="FVAreaTool" message="Draw a rectangle to select FV"
        <Help heading="FV Select Tool"></Help>
      </Tool>
    </Commands>
  </ArcMap>
</addin>
```

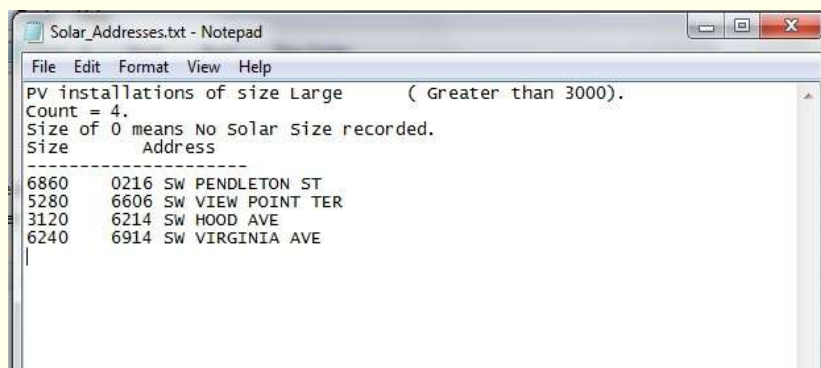
```
'ArcObjects Library Reference - Use a Tool in a Windows Form Snippet
'Connect a tool embedded in a Windows Form with the ArcGIS Application Framework
'-----Ben Lealey: The UI class enables that the Interface

Dim UIClass As ESRI.ArcGIS.esriSystem.UIClass = New ESRI.ArcGIS.esriSystem.UIClass()
' id property of menu from Config.esriaddinx document
UIDCis.Value = "Microsoft.FVArea.FVAreaTool"
Dim document As ESRI.ArcGIS.Framework.IDocument = My.ArcMap.Document
Dim commandItem As ESRI.ArcGIS.Framework.ICommandItem = TryCast(document.CommandBar.Find(UIClass), ESRI.ArcGIS.Framework.ICommandItem)
If commandItem Is Nothing Then
  Exit Sub
End If
My.ArcMap.Application.CurrentTool = commandItem
```

Access ComboBox from Tool

[illegible]

Save File



Challenges

- Connecting to a tool from a dockable window
- Accessing ComboBox from Tool



Future Enhancements

- Check boxes to include other fields in the saved file
 - Year Built
 - Owner name
 - Square footage of home

