

Street Smart Esri Integrations

Codebase Overview

The components of the integrations are split up into 4 repositories that are publicly available at <https://github.com/cyclomedia/>. These are:

- **streetsmart-aol-widget**
 - <https://github.com/cyclomedia/streetsmart-aol-widget/>
- **streetsmart-dotnet**
 - <https://github.com/cyclomedia/streetsmart-dotnet/>
- **streetsmart-arcgis-pro**
 - <https://github.com/cyclomedia/streetsmart-arcgis-pro/>
- **streetsmart-arcmap**
 - <https://github.com/cyclomedia/streetsmart-arcmap/>

Please also reference the forks at <https://github.com/ctalr/> as they may be slightly more updated than the main Cyclomedia branches. Look at the latest branches to see the status of more recent releases. A copy of the latest versions of these codebases should be included with this document as well.

Add-In .NET Project Information

It is recommended to use Visual Studio 2019 as your primary IDE for all .NET projects. The main projects currently in use are:

- ArcGIS Pro Add-in: **StreetSmartArcGISPro**
- ArcMap Add-in: **StreetSmartArcMap**
- ArcGIS Pro .NET API Connector: **StreetSmartAPI.x64.v73**
- ArcMap .NET API Connector: **StreetSmartAPI.x86.v73**

This package includes a Street Smart API key in XML file format (APIKey.xml). It should be placed in the StreetSmartArcGISPro project's Resources directory. Its contents are:

```
<?xml version="1.0"?>[REDACTED]
```

The StreetSmartArcMap project has its key embedded into the codebase. Because this is public, it might be a good TODO item to invalidate it and put in a new key as a similar XML file.

The ArcGIS Pro and ArcMap add-ins both use the .NET (dotnet) API connector as a referenced library. When new versions are compiled, please make sure that both the API connector library and the actual add-in projects are using the same version of CEF. The suggested version to use at the time of writing is currently 90.6.70. Visual Studio has a habit of being stubborn about NuGet libraries so aim for that if it messes up on a fresh environment. If not included by default, you will also need to reference a CEF runtime .dll included with this package that is also for the same version.

If the CEF version ever needs to be upgraded, remember to update the target versions in the .csproj files as well.

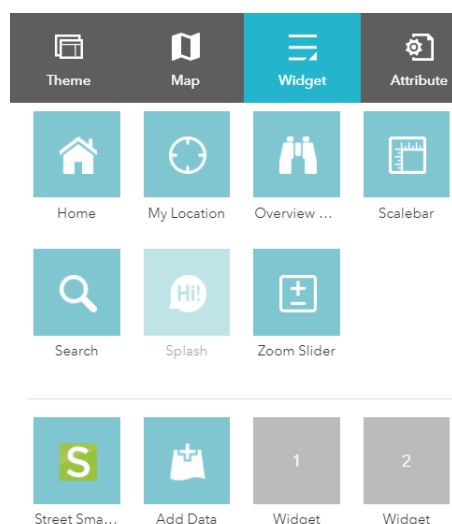
StreetSmartArcGISPro uses x64 settings and the StreetSmartAPI.x64.v73 WPF connector library (also uses x64 settings). StreetSmartArcMap uses x86 settings and the StreetSmartAPI.x86.v73 WinForms connector library (also uses x86 settings). Make sure these are properly selected when building these projects as well.

Widget Project Information

The widget is a more flexible codebase where Visual Studio Code, Atom, Sublime Text, or other similar programs make more sense to use. NPM is used for builds, so it isn't dependent on any specific IDE (`npm run build`).

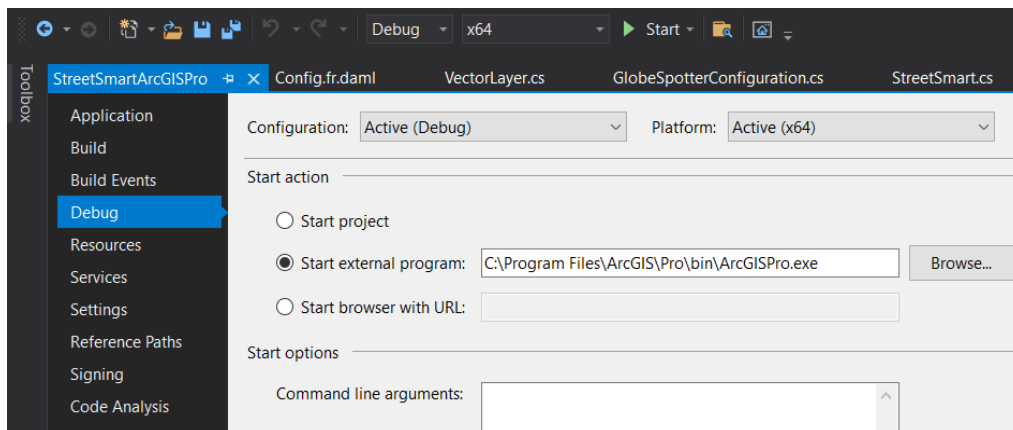
To test the widget locally, Esri Web AppBuilder (WAB) is required. The developer edition can be downloaded for free at <https://developers.arcgis.com/web-appbuilder/>. Once installed and running, simply copy the contents of the `dist\CyclomediaAOL_Widget` directory after a build over to `ArcGISWebAppBuilder\server\apps\2\widgets\StreetSmart`. You will have to create the StreetSmart directory there if this is a new install. After every build, simply copy it over like this so that your local WAB has the latest version. **When distributing the widget, remember to also distribute it within a folder named StreetSmart.**

If done successfully, the Street Smart widget will be visible at the bottom of the Widget pane here:



Project Debugging

For the .NET projects, ShowDevTools() and Ctrl+Alt+M (in ArcGIS Pro) can prove valuable when trying to isolate API connector-level errors in ArcGIS Pro and ArcMap. On the Add-in side, you can debug and attach the project to ArcGIS Pro or ArcMap directly to be able to take advantage of breakpoints and other Visual Studio debugging tools.



For the widget, Google Chrome's in-browser developer tools work wonderfully. When looking at issues for all projects, it's important to keep in mind what is something that can be resolved on this integration side of things, or if the issue lies in the API itself and needs to be resolved by the API team.

Additional Resources

- **Cyclomedia Street Smart Site:** [Link]
- **JavaScript API Test Page:** [Link]
 - (Version path can be changed to access other versions)
- **API Documentation:** <https://www.cyclomedia.com/us/code-samples>
 - [Internal Document]
 - [Internal Document]
- **ArcGIS Online Portal:** <https://streetsmart.maps.arcgis.com>
- **Cyclomedia-Hosted Portal:** [Link]
- **Integrations Jira Board:** [Link]
 - Client bugs are also tracked on separate spreadsheets. Occasionally these need to be consolidated into the Jira board for task estimation. [Redacted] (Email) can provide access to these.
 - Certain bug replications and test cases are tracked in another spreadsheet managed by [Redacted] (Email).