Connecting to ProjectFirma™ Geospatial Services with Desktop GIS

A ProjectFirma Technical Guide

Introduction

These instructions are intended for Data Managers or Analysts seeking access to information from ProjectFirma in GIS in order to make maps, perform spatial analysis, and share accomplishments.
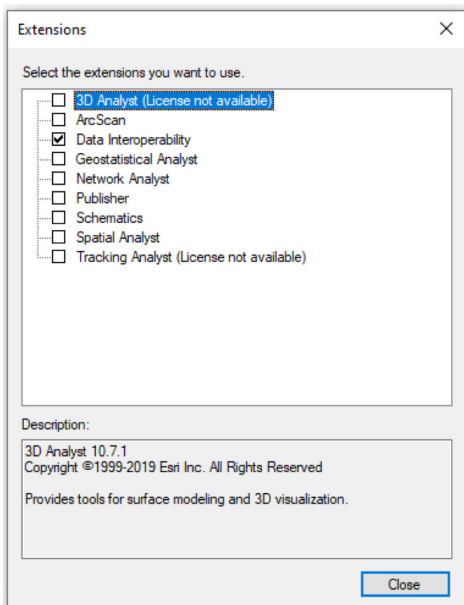
ProjectFirma exposes a range of useful program data as geospatial web services in the Web Feature Service (WFS) format, serving vector representations of the data. These services can be found at the top of the Web Services page (Program Info -> Web Services) which is accessible only when users are logged in.
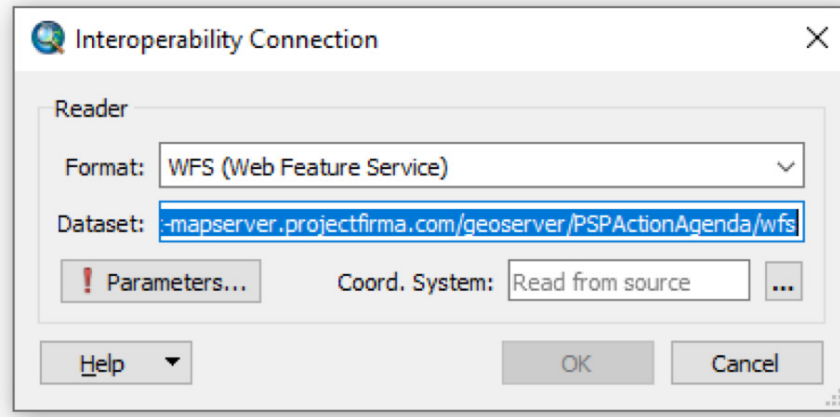
Process

ArcMap

ArcMap is the tried-and-true desktop GIS solution from ESRI. The WFS format, provided by ProjectFirma, is an Open Geospatial Consortium specification that is similar, but not identical, to ArcGIS feature services. Due to their differences, the Data Interoperability Extension is required to load a WFS into ArcMap regardless of license level (Basic, Standard, or Advanced).

To enable the Data Interoperability Extension in ArcMap, or check if it's available to you, click the Customize menu, then Extensions. Check the box next to Data Interoperability. If this box isn't available, then the Extension may not be installed on your system.
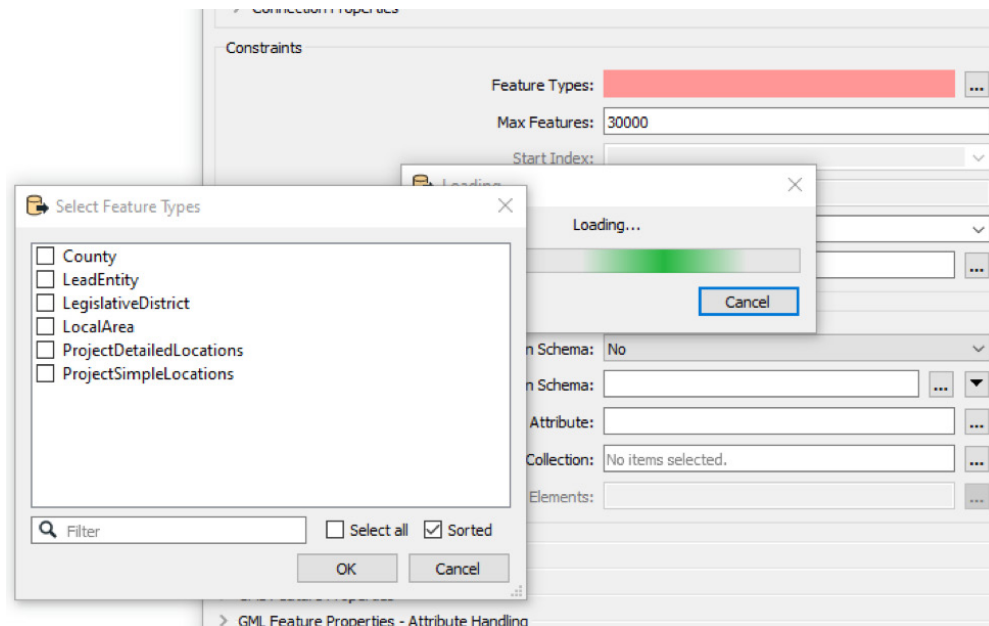

To connect to ProjectFirma geospatial web services, open the Catalog pane in ArcMap, expand the option for Interoperability Connections, and double click Add Interoperability Connection. Select WFS (Web Feature Service) from the Format dropdown. If this option does not appear on the list, select More Formats, then use the search function to find the WFS option.

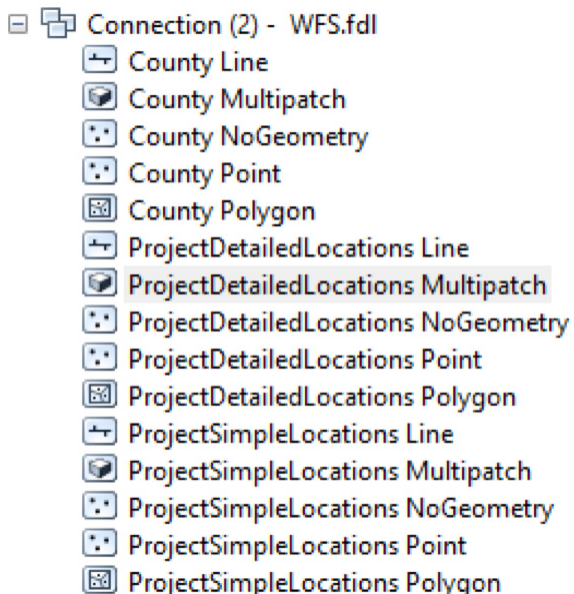When this is done, paste the WFS URL from the Web Services page of ProjectFirma into the Dataset text box.

Next, click the Parameters button to enter additional parameters for the connection. Clicking the three dots next to Feature Types will load the available feature types from ProjectFirma. Select the feature types you want to include.

When this is completed, a new Interoperability Connection will be shown in the Catalog pane. Expand the Catalog pane to view available layers.

Frustratingly, this list includes a layer for each combination of feature types from ProjectFirma and possible geometry types. For example, ProjectSimpleLocations are always served as points while the layers for other geometry types will be empty. ProjectDetailedLocations, on the other hand, can include points, lines, and polygons.
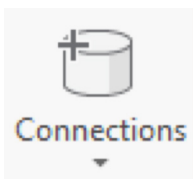
Add the desired layers to you map to view them and inspect their attributes. These can then be used in a map or exported to a shapefile, geodatabase, or other format.

ArcGIS Pro

ArcGIS Pro is a relatively new, modern alternative to ArcMap that is also offered by ESRI. The steps for consuming WFS services in ArcGIS Pro are much more straightforward than with ArcMap.

Locate the Connections button in the top toolbar.

Click this button and select New WFS Server. This will open the Add WFS Server Connection window. Enter the WFS URL from the Web Services page of ProjectFirma, then click ok.

The WFS service will now appear in the Catalog pane under the Servers heading. To add layers to the map, simply expand the WFS connection and drag the desired layer onto the map.
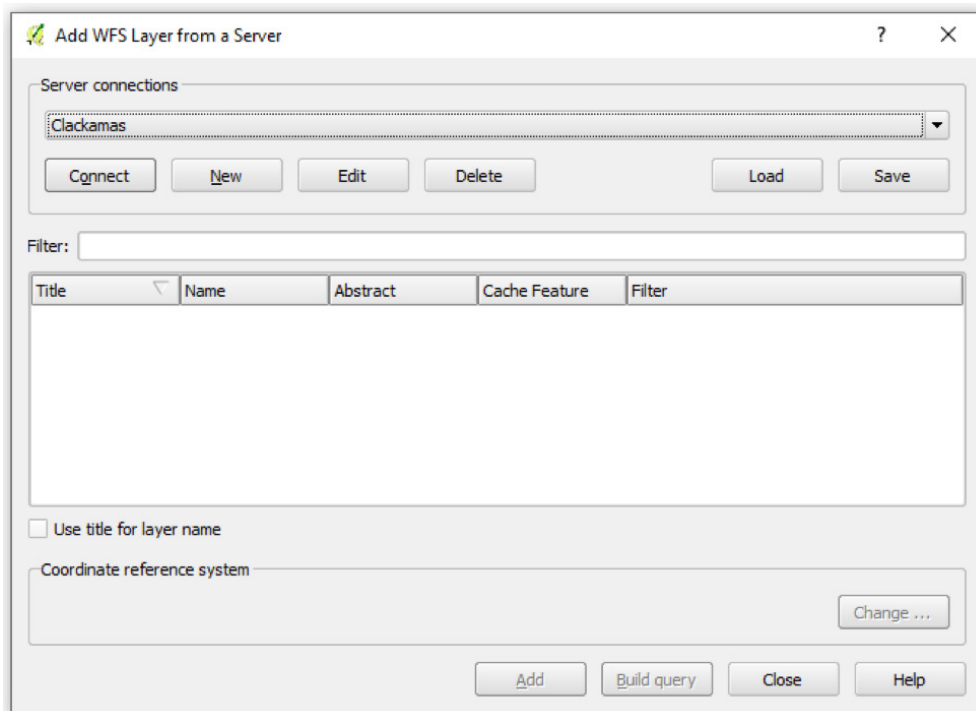
QGIS

QGIS is an open source, standards compliant desktop GIS application. It is completely free to install and use. Consuming a WFS in QGIS is simple.
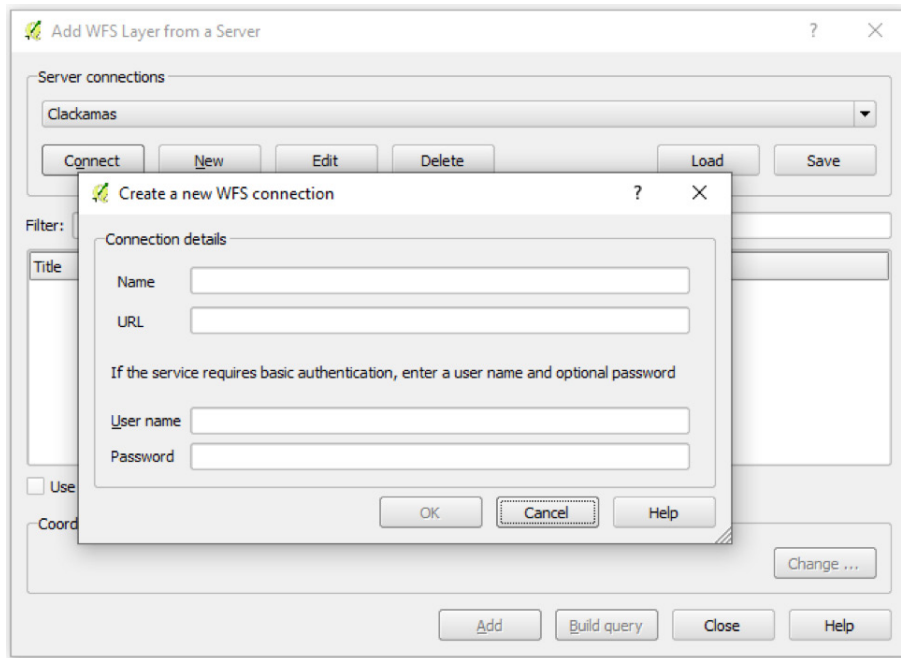
On the left toolbar, locate the Add WFS Layer button.

This will open the WFS configuration window, which shows any existing connections and allows new connections to be created. Click the New button to create a connection.

Enter a descriptive name for the connection and the WFS URL from the Web Services page of ProjectFirma, then click ok.

Now that the connection has been added, click connect to show a list of available layers. Select the layers that you would like to add to the map. They can now be used to produce maps or exported to a range of geospatial formats.

Looking Forward

Now that your data is loaded into your GIS application of choice, you're now able to view and analyze up-to-date data from ProjectFirma, as well as save a static copy for record keeping or sharing. You now also have the capacity to produce maps highlighting specific projects or programs.

ProjectFirma provides geospatial web services as a way to share data and integrate with outside systems. Sitka is proud to provide a robust array of web services within this product. However, if you identify additional functionalities that you'd like to see added to the ProjectFirma product roadmap, feel free to reach out to Sitka directly or through the ProjectFirma User Group. Keep an eye out for future updates as they are developed.

GET STARTED

For organizations interested in improving transparency and accountability of their environmental programs with ProjectFirma, please contact us at **1.800.805.6740** or **sales@sitkatech.com**
For more information, please visit: **www.sitkatech.com/ProjectFirma**

Sitka Technology Group • 1.800.805.6740 • sales@sitkatech.com • www.sitkatech.com • @sitkatech