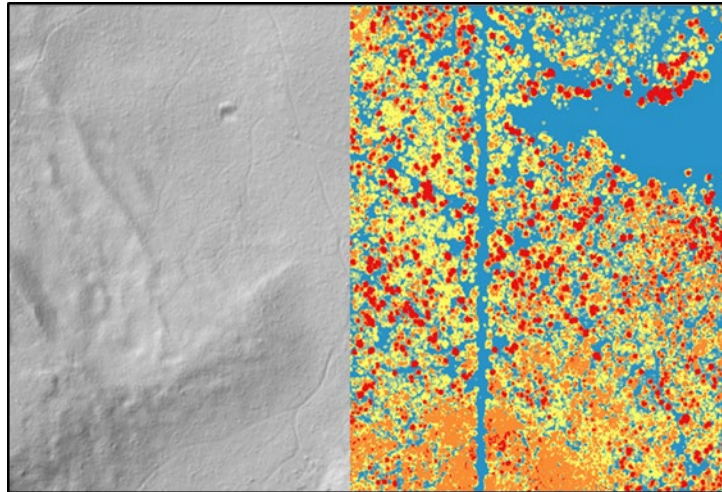




# EXERCISE 1

## Access the Services in ArcGIS Pro



### Introduction

Image services and the RDW are GIS Services that allows users to efficiently access and display large volumes of raster data from a central server. You can enjoy easy access to current high resolution imagery such as NAIP without the hassle of storing so much data.

### Objectives

- Learn how to connect to Image Services and the RDW within ArcGIS Pro and outside of it.

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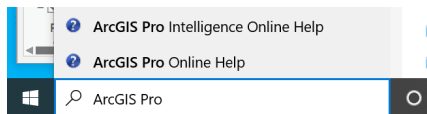


# Part 1: Access the Services in ArcGIS Pro

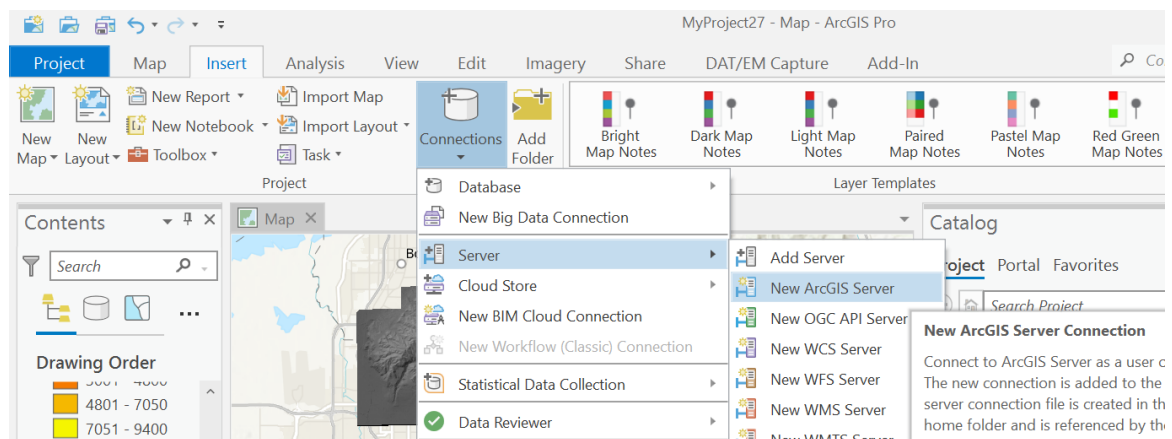
You can connect to Image Services and the RDW in ArcGIS Pro using the Catalog.

## A. Connect using Catalog

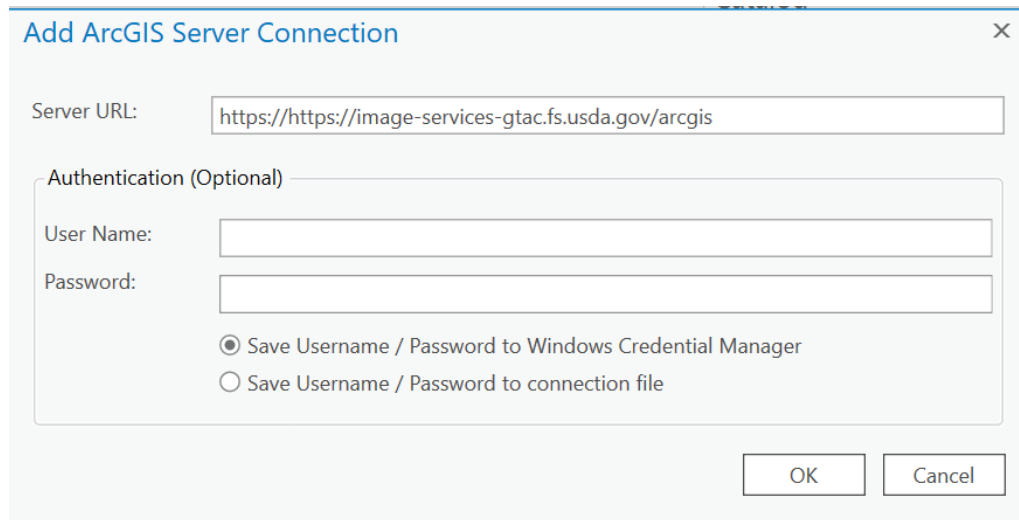
1. Launch **ArcGIS Pro** (hint: type ArcGIS Pro in the search field by the Start button to find it).



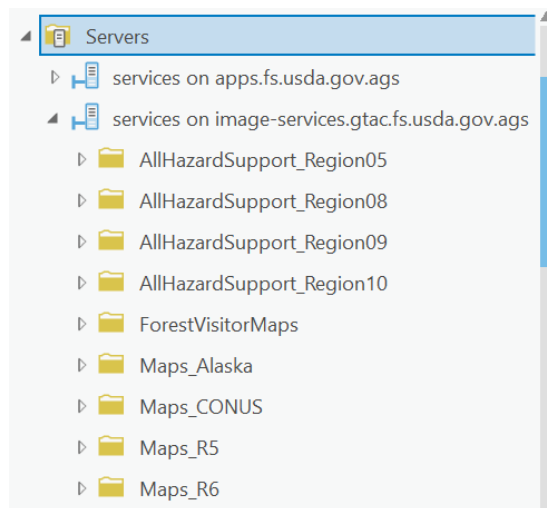
2. Open a new map.
3. On the **Insert** ribbon, click the **Connections** menu then place your cursor over the **Server** menu and select **New ArcGIS Server**.



4. In the box next to Server URL:, copy and paste one of the following addresses:
  - i. Image Services: <https://image-services-gtac.fs.usda.gov/arcgis/services>
  - ii. Internal RDW Map: <https://apps.fs.usda.gov/arcn/services>
  - iii. Internal RDW Raster: <https://apps.fs.usda.gov/fsgisn01/services>
  - iv. External RDW Map: <https://apps.fs.usda.gov/arcx/services>
  - v. External RDW Raster: <https://apps.fs.usda.gov/fsgisx01/services>



5. Leave the User Name and Password boxes blank, and click **OK**. The service will be added to the list under Servers.
6. If needed, open the Catalog by going to the **View** tab (Windows section) and clicking **Catalog Pane**.
7. In the **Catalog pane**, click the arrow next to the **Servers** folder to open it.
8. View the contents of the service by clicking the arrow to the left of the server name.

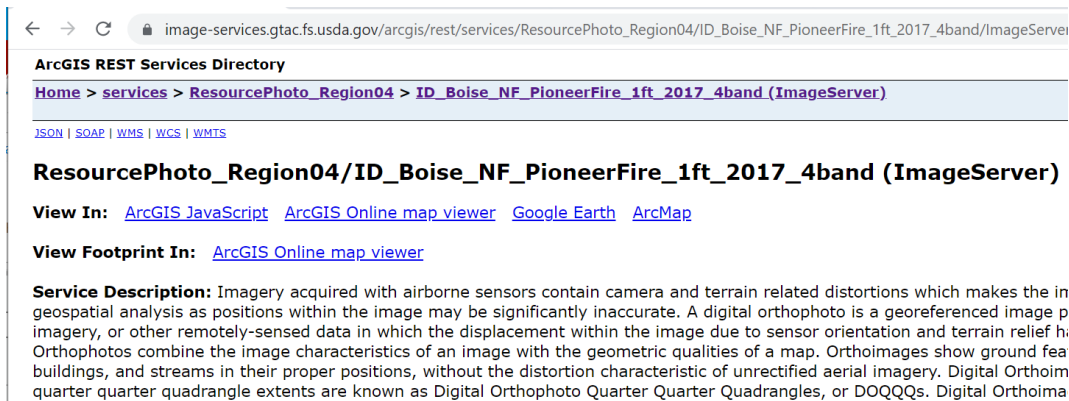


9. To add a service to your map, simply click-and-drag the service to the map window or Contents pane.

## Part 2: Access the Services on REST pages

You can access the Image Services and RDW data on their REST pages. REST is an acronym for Representational State Transfer which is a method of transferring information to your web browser. On the server REST pages you will find descriptions and metadata for each of the services.

1. Visit one of the following REST pages:
  - i. Image Services: <https://image-services-gtac.fs.usda.gov/arcgis/rest/services>
  - ii. External RDW: <https://apps.fs.usda.gov/arcx/rest/services>
  - iii. Internal RDW: <https://apps.fs.usda.gov/arcn/rest/services>
2. On the page, click one of the folders then click one of the services.
  - i. You can navigate up levels using the breadcrumbs near the top of the page, or by using your browser's Back button.
3. You should now see a page with several options for viewing the service and a description of it (see following graphic).



← → ↻ image-services.gtac.fs.usda.gov/arcgis/rest/services/ResourcePhoto\_Region04/ID\_Boise\_NF\_PioneerFire\_1ft\_2017\_4band/ImageServer

**ArcGIS REST Services Directory**

Home > services > ResourcePhoto\_Region04 > ID\_Boise\_NF\_PioneerFire\_1ft\_2017\_4band (ImageServer)

[JSON](#) | [SOAP](#) | [WMS](#) | [WCS](#) | [WMTS](#)

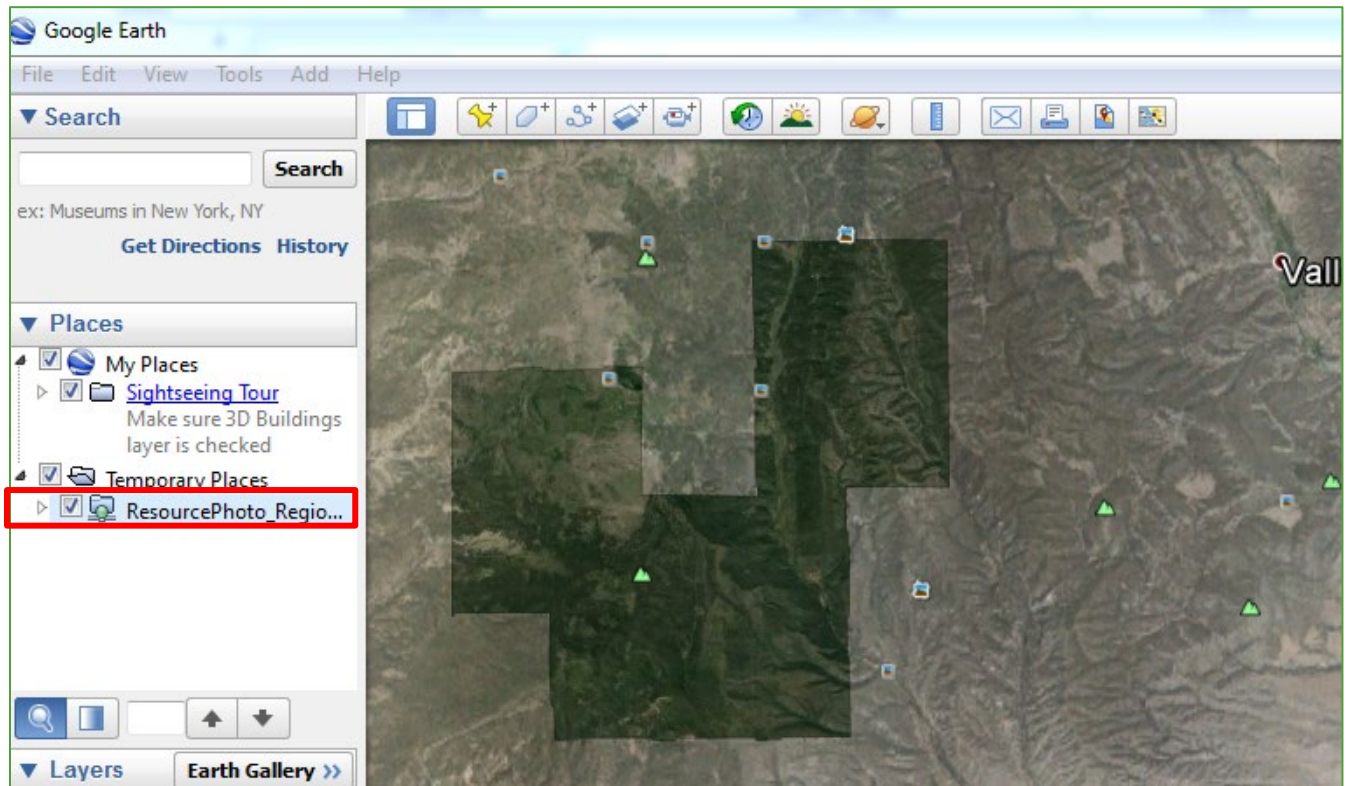
**ResourcePhoto\_Region04/ID\_Boise\_NF\_PioneerFire\_1ft\_2017\_4band (ImageServer)**

**View In:** [ArcGIS JavaScript](#) [ArcGIS Online map viewer](#) [Google Earth](#) [ArcMap](#)

**View Footprint In:** [ArcGIS Online map viewer](#)

**Service Description:** Imagery acquired with airborne sensors contain camera and terrain related distortions which makes the in geospatial analysis as positions within the image may be significantly inaccurate. A digital orthophoto is a georeferenced image p imagery, or other remotely-sensed data in which the displacement within the image due to sensor orientation and terrain relief h; Orthophotos combine the image characteristics of an image with the geometric qualities of a map. Orthoimages show ground fea buildings, and streams in their proper positions, without the distortion characteristic of unrectified aerial imagery. Digital Orthoim quarter quarter quadrangle extents are known as Digital Orthophoto Quarter Quarter Quadrangles, or DOQQs. Digital Orthoima

4. Click the **Google Earth** option for viewing the service. You should now see a **.kmz** file has been downloaded.
5. If you don't already have Google Earth installed, please visit the [Google Earth install page](#).
6. Open Google Earth and load the kmz file.
7. In the **Places** window, click on the file to zoom the viewer to the image layer (see following graphic).



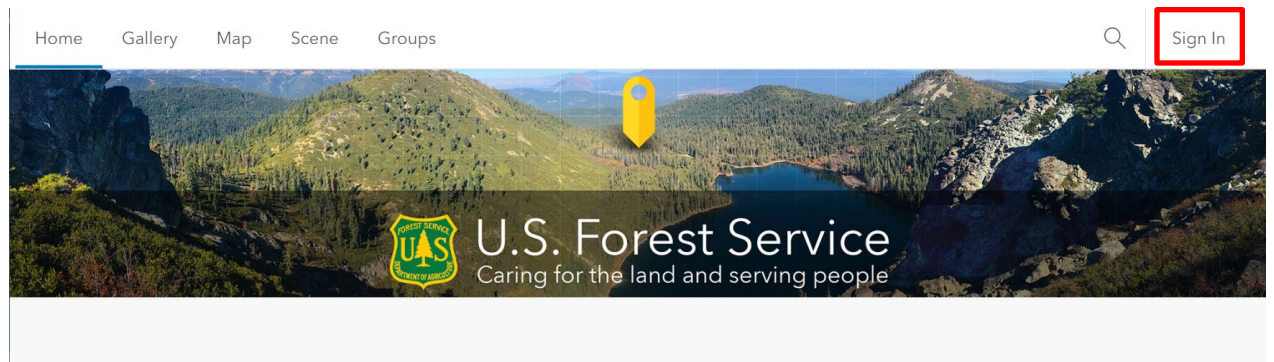
*There is now an Early Access Web Service (EAWS) which is an ESRI Restful 4 band image service that contains pre-production NAIP imagery. The imagery is added to the service, on average, 5 business days after the imagery acquisition. This imagery is minimally processed to speed up the posting of imagery to the image service. For more information, refer to this [document](#).*

## Part 3: Access the Services in AGOL

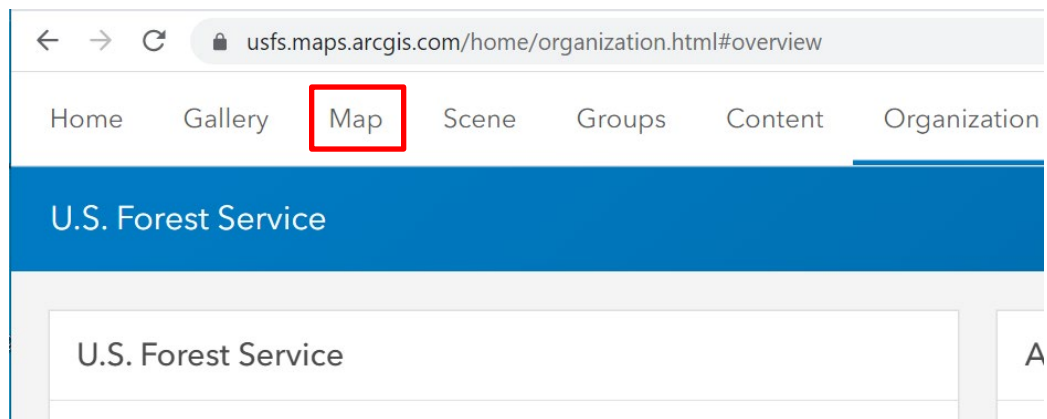
ArcGIS Online (AGOL) is a cloud based Web GIS content management platform for collaboration and sharing of maps, applications, data and other geospatial information. The Forest Service is implementing AGOL enterprise wide to provide a method for publishing and communicating both standard and non-standard, unit-level spatial information to the public, agency cooperators, and other government entities.

1. You must first setup an AGOL account by visiting this site: [http://fswbgstc.gsc.wo.fs.fed.us/services/applications\\_tools/AGOL/request\\_access.php](http://fswbgstc.gsc.wo.fs.fed.us/services/applications_tools/AGOL/request_access.php)
  - i. After you have submitted the application, you should receive an email from an FS AGOL administrator with directions to setup your password.
2. Visit the FS AGOL website: [usfs.maps.arcgis.com](http://usfs.maps.arcgis.com).
3. Click the **Sign In** button in the upper right corner of the page.

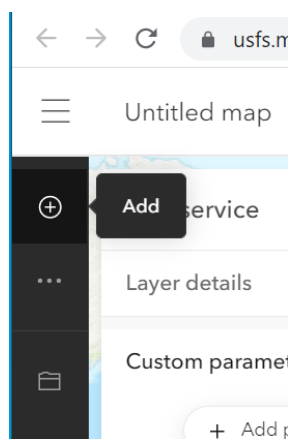




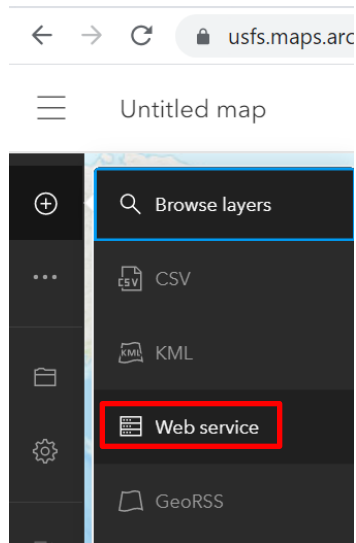
4. Click the **Map** button on the main menu.



5. On top of the left side ribbon click **Add**.

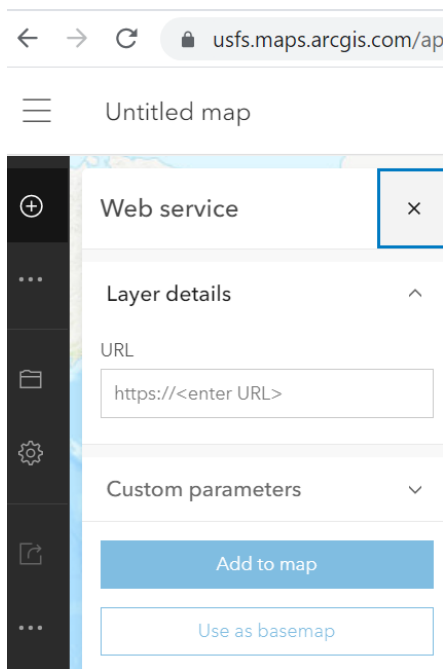


6. In the menu that opens click **Web service**.



7. In the URL field, enter one of the following REST URLs:
  - i. Image Services: <https://image-services.gtac.fs.usda.gov/arcgis/rest/services>
  - ii. RDW Internal Services: <https://apps.fs.fed.us/arcn/rest/services>
  - iii. RDW External Services: <https://apps.fs.fed.us/arcx/rest/services>

*Important: The URLs must start with **https**, not http.*



8. Click **Add to map**.



**End of exercise**

