

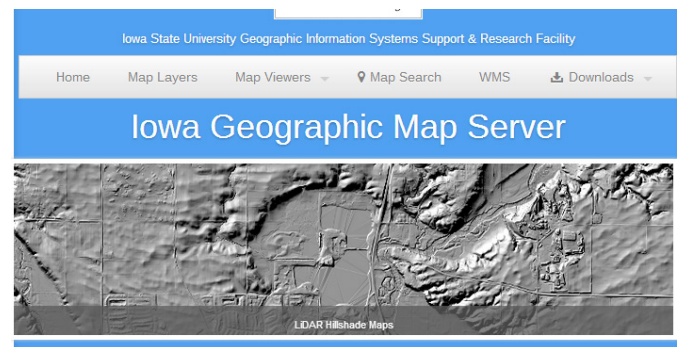
Connecting to Iowa Geographic Map Server Imagery: WMS Connection

Welcome to the Essential ArcGIS Task Sheet Series. This series supplements the Iowa State University GIS Geospatial Technology Training Program short course series, “Essential ArcGIS Tutorial Series.” The task sheets are designed to provide quick, easy instructions for performing specific tasks in GIS.

Orthophotos are geometrically corrected aerial photographs. The Iowa Geographic Map Server provides orthophoto sets for the state of Iowa, dating back to the 1930s and available in natural color and color infrared. This task sheet will take you through the steps of adding a WMS connection to Iowa Geographic Map Server Imagery, adding the imagery to ArcMap, and clipping the data frame to an area of interest.

1. Find the Path to the WMS Server

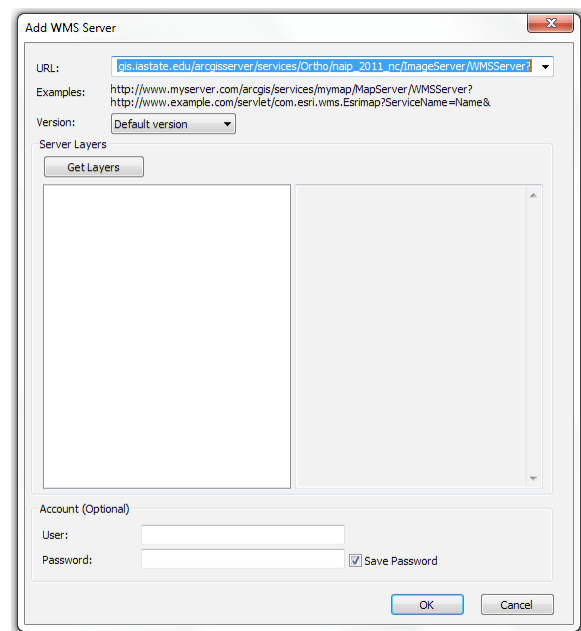
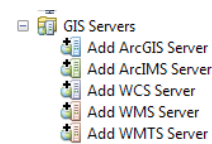
- In a web browser, navigate to the Iowa Geographic Map Server website at www.ortho.gis.iastate.edu.
- Click on **WMS** located in the bar at the top of the website. Here you will find a list of orthophotos. For this tutorial we will choose the Summer 2011 Natural Color Orthophoto.
- Select and copy the URL.



For the summer 2011 Iowa natural color orthophotos use http://ortho.gis.iastate.edu/arcgisservices/services/Ortho/naip_2011_nc/ImageServer/WMServer?

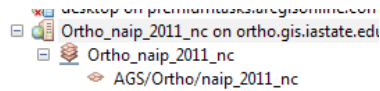
2. Connect to the WMS Server

- Open a blank ArcMap document, click **Start > All Programs > ArcGIS > ArcMap**.
- Open ArcCatalog from within the map document. Click on the **Catalog** icon in the **Standard Toolbar** at the top of the window.
- Scroll down to **GIS Servers** and double-click to open the different GIS Server options. Select **Add WMS Server** and double-click.
- In the **Add WMS Server** dialog box paste the copied URL into the **URL:** box. Click **OK**.
- You should find **Ortho_naip_2011_nc** on **ortho.gis.iastate.edu** added to the bottom of the **GIS Servers** list in Catalog.



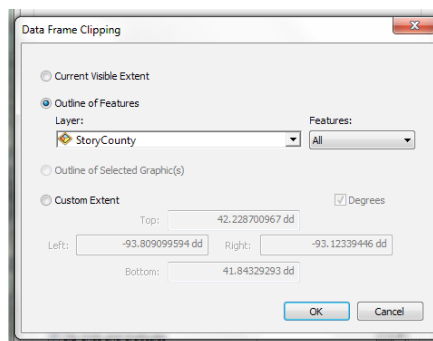
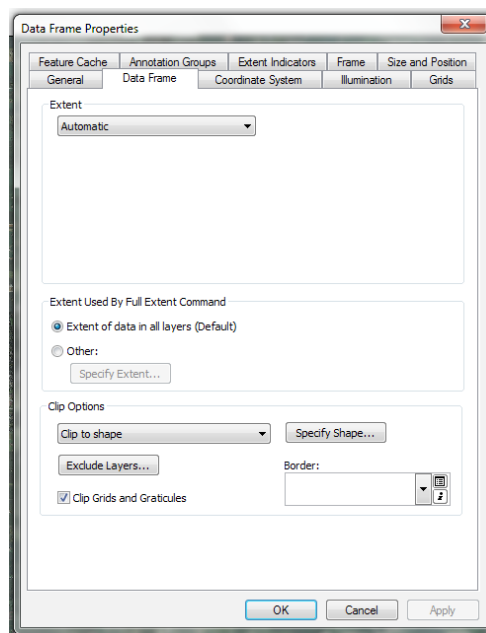
3. Add the Imagery to ArcMap

- Double-click on **Ortho_naip_2011_nc on ortho.gis.iastate.edu**, then double-click on **Ortho_naip_2011_nc, AGS/Ortho/naip_2011_nc** will be displayed underneath.
- Click and drag **AGS/Ortho/naip_2011_nc** to the white space of the ArcMap document or to the **Table of Contents**.
- Add a shapefile that has an extent of an area you are interested in viewing. We will use a shapefile of Story County, Iowa. You can use any shapefile you like. *Note: your shapefile can be a point, line or polygon feature but its extent must be located within or partially within the state of Iowa or the imagery will not be visible in the next step.*



4. Clip the Data Frame to an Area of Interest

- Open the **Data Frame Properties** dialog box. Right-click on the data frame, **Layers**, and select **Properties**.
- Select the **Data Frame** tab at the top of the window. In the **Clip Options** sections select **Clip to Shape**. Then click on **Specify Shape**.
- In the **Data Frame Clipping** dialog box, select the clipping option of **Outline of Features** and choose your shapefile from the **Layer:** drop-down. Click **OK**.
- Click **OK** in the Data Frame Properties dialog box. You will now see that the imagery is clipped to the extent of the shapefile you selected. As you zoom in and out and pan around the imagery you should notice that the draw time of the Ortho_naip_2011_nc files is faster than before it was clipped.



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