

AFM & Technology

- A couple of time savers and tips -

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Technology in the Field

- AFM's use in Michigan

Conclusion and Questions

American Forest Management

Land Management Services

- ~450,000+ acres managed in Michigan with total staffing of 17
- ~5,000,000+ acres managed in 16 states with ~260 employees

Real Estate Services

- Land sale and land acquisition services – forest lands, cabin sites
- Appraisal

Inventory & Technical Services

- Timberland mapping and data management
- Harvest analysis and harvest planning
- Timber Inventory

Wood Flow Services

- Direction of forest product deliveries
- Accounting functions for paying suppliers and billing buyers

American Forest Management Inc. Office Locations



● Corporate Office ● District Office ● Field Office

Map Generated on 10/11/16. It is intended for general purposes only. Map Data generated using ESRI data.



0 50 100 200 Miles

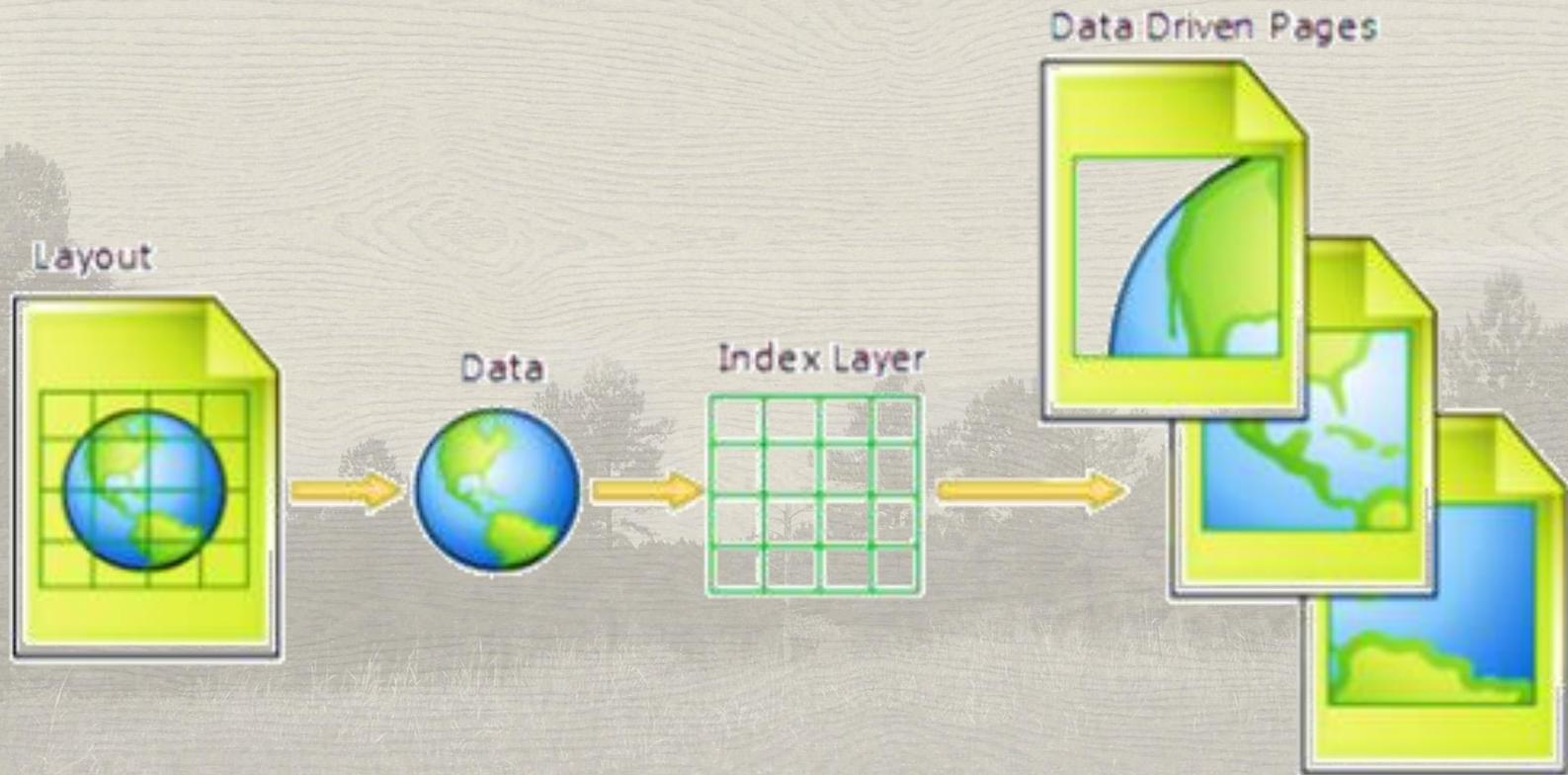


Technology in the Office



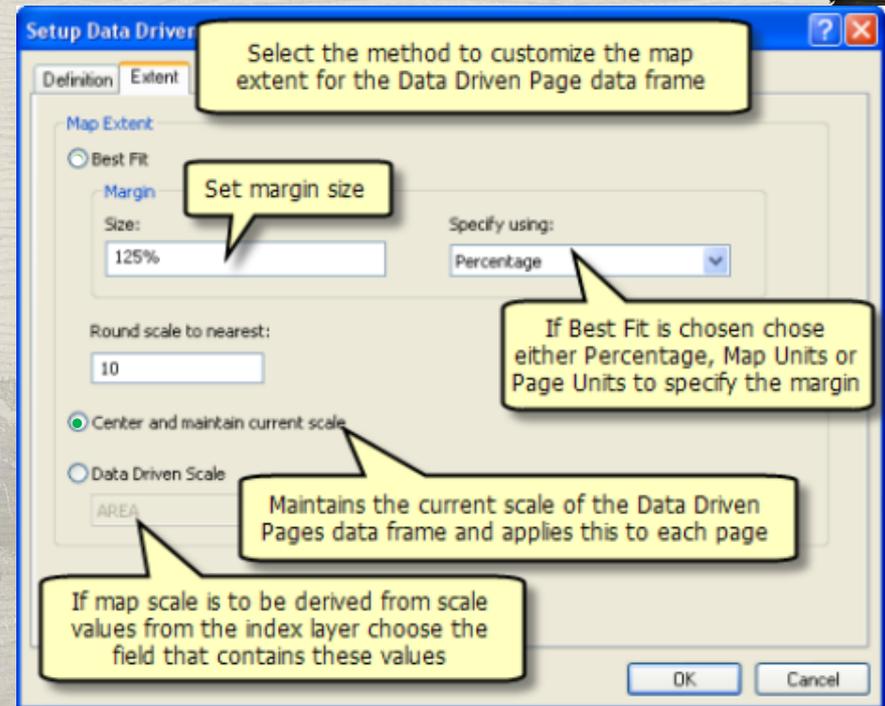
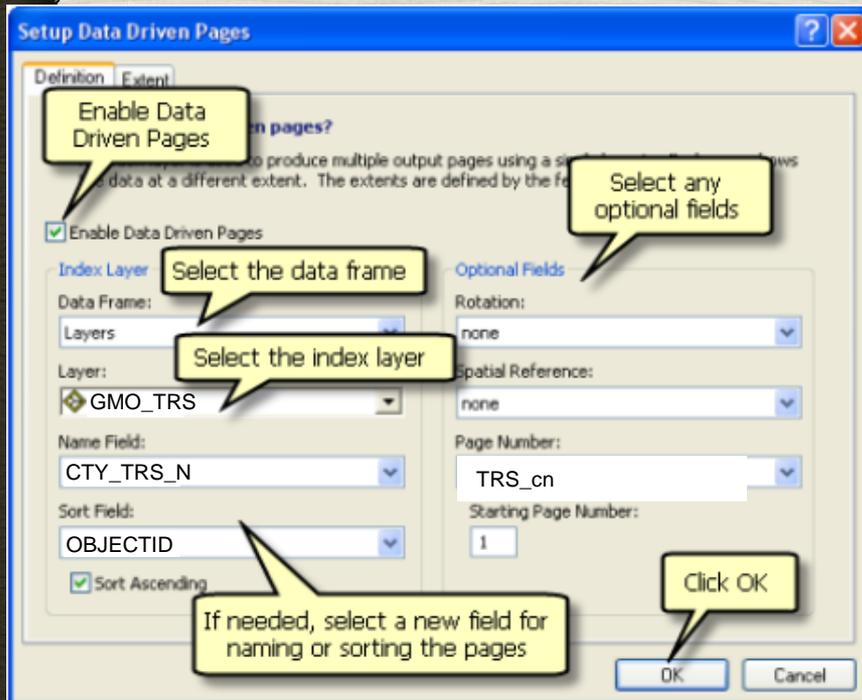
Data Driven Pages in ArcMap

Data Driven Pages allow you to quickly and easily create a series of layout pages from a single map document.

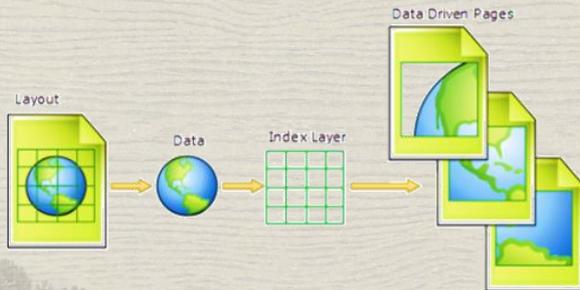


Data Driven Pages in ArcMap

You create and customize new Data Driven Pages using the **Setup Data Driven Pages** dialog box. This dialog box contains two tabs: **Definition** and **Extent**.



Data Driven Pages in ArcMap



Layout → Legend, titles, logos, scale text, frames, etc.

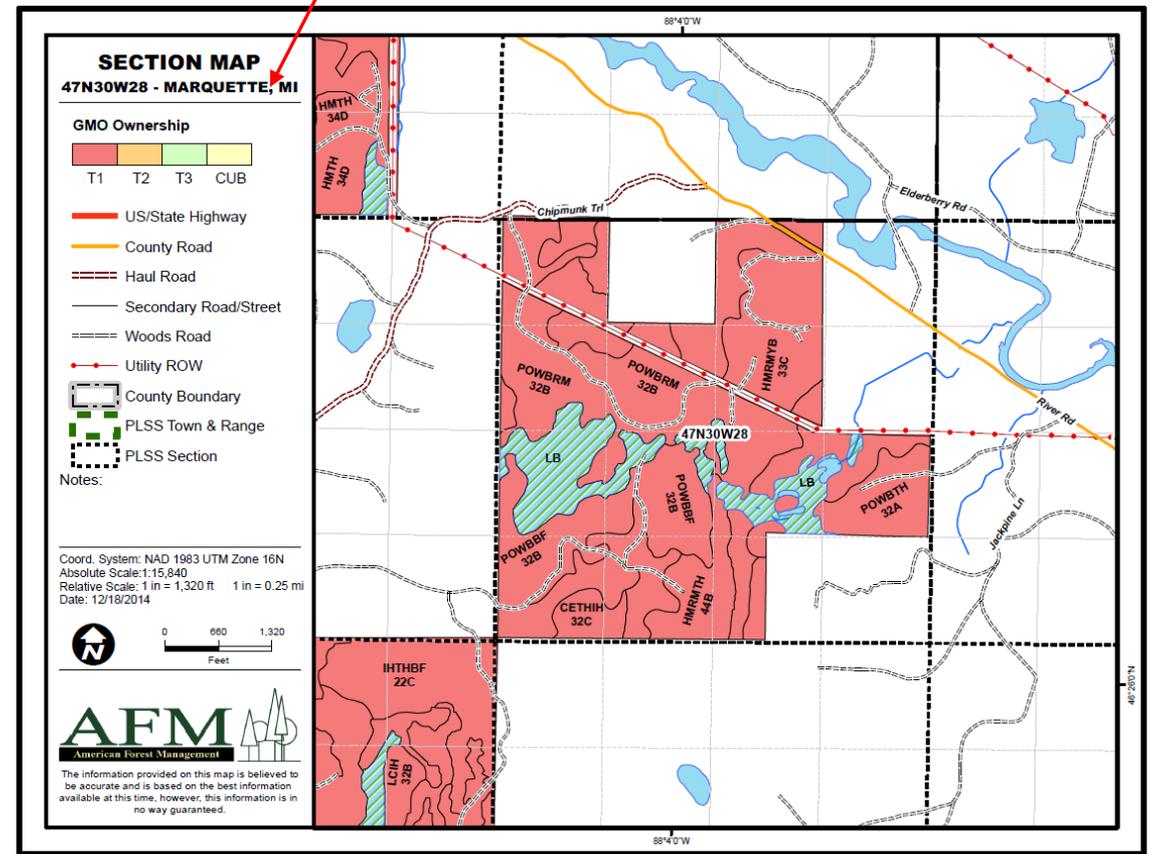
Data → GMO Ownership, stands, roads, county boundary, lakes, streams, GMO_TRS, PLSS Town & Range, PLSS Sections, and PLSS 40 lines.

Index Layer → GMO_TRS

Data Driven Pages → PLSS Sections with GMO Ownership

Exported 1,766 pdf maps in about 20 minutes...named individually using "Name Field".

Name Field (Dynamic Text based on Data Driven Name Field)



Adobe Acrobat XI

A geospatial PDF contains information that is required to georeference location data. When geospatial data is imported into a PDF, Acrobat retains the geospatial coordinates. With the coordinates, you can view and interact with the PDF to find and mark location data.

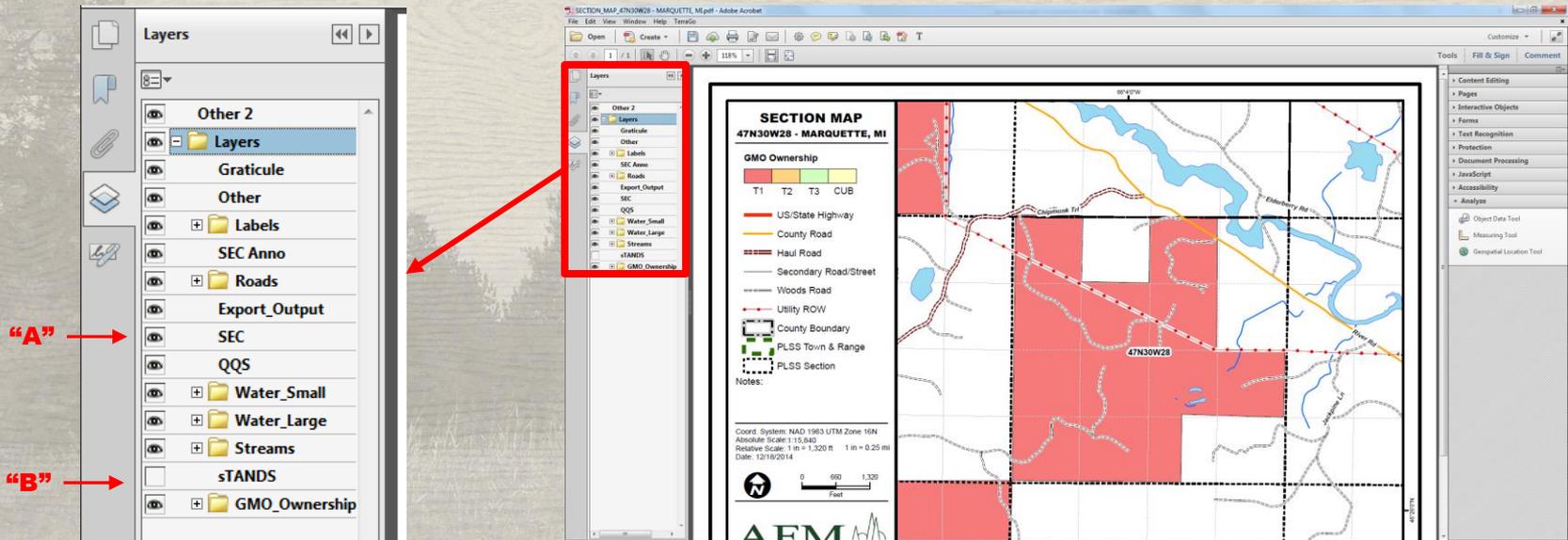
Geospatial data can be either vector or raster based or a combination of both. After you import geospatial data into Acrobat, you can use the data in a variety of ways:

- Find and mark location coordinates.
- Turn Layers on and off.
- Measure distance, perimeter, and area.
- Change the coordinate system and measurement units.

Adobe Acrobat XI - Layers

Information can be stored on different layers of a PDF. The layers that appear in the PDF are based on the layers created in the original application such as ArcMap. Use the Layers panel to examine layers and show or hide the content associated with each layer.

A. Eye icon indicates a displayed layer **B.** Hidden layer (see map no stands displayed)

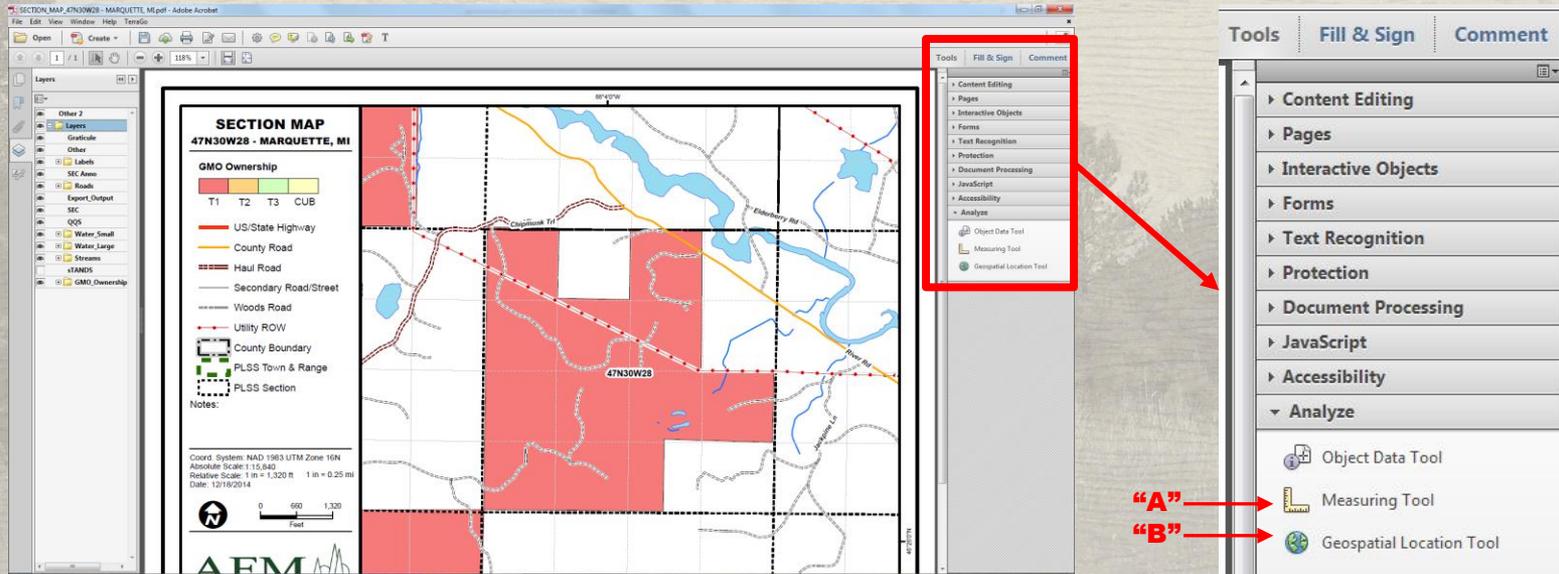


Adobe Acrobat XI - Analyze

When you open a geospatially enabled PDF, you can find locations, measure distances, and add location markers. You can also copy coordinates to the clipboard for use with a web mapping service.

View the geospatial measuring tools by choosing Tools > Analyze panel.

A. Measuring Tool **B.** Geospatial Location Tool



Adobe Acrobat XI - Analyze

Measuring Tool → Measure distance, perimeter, and area on maps

1. In the Measuring Tool display, select a “Snap Types”:

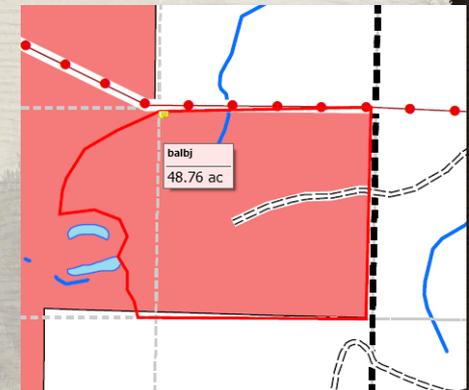
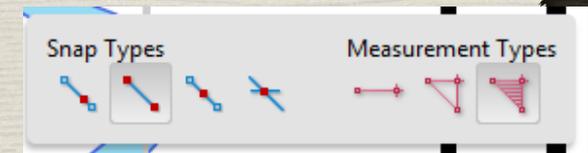
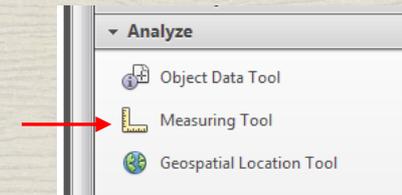
Paths, End Points, Mid points, or Intersections

2. In the Measuring Tool display, select a “Measurement Types”:

Distance, Perimeter, or Area

3. Do one of the following:

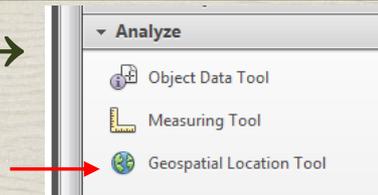
- If you are using the Distance tool, click where you want to start the measurement, and then drag to the end point and click again. The distance is displayed in the lower-right corner.
- If you are using the Perimeter tool, click the map in one corner of the perimeter, and then drag to each corner. Click at each corner and then double-click at the end point. The information window displays the perimeter size.
- If you are using the Area tool, click the map at one corner of the area, and then drag to another corner. Click before changing directions. Double-click at the end to display the total area.



Adobe Acrobat XI - Analyze

Geospatial Location Tool →

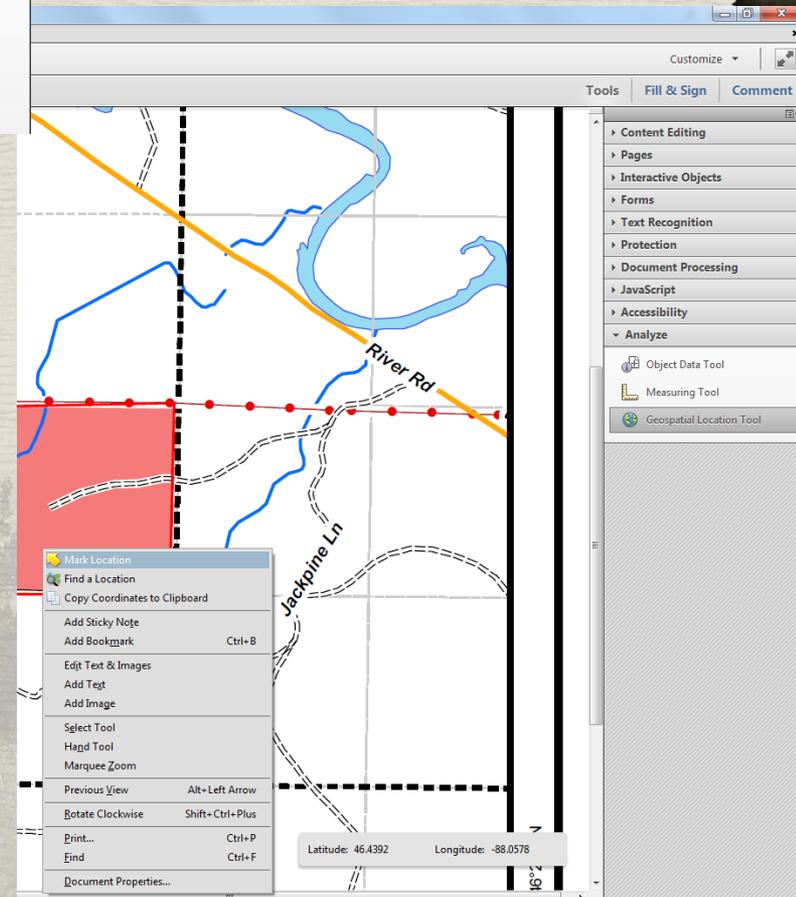
Locate longitude and latitude, and mark locations with geospatial information.



1. Move the mouse pointer over the document to view latitude and longitude values of areas that contain geospatial information. Right-click inside the map, and then do one of the following:

- To find a location, click Find A Location. Type the latitude and longitude values, and click Find.
- To mark a location with geospatial information, click Mark Location.

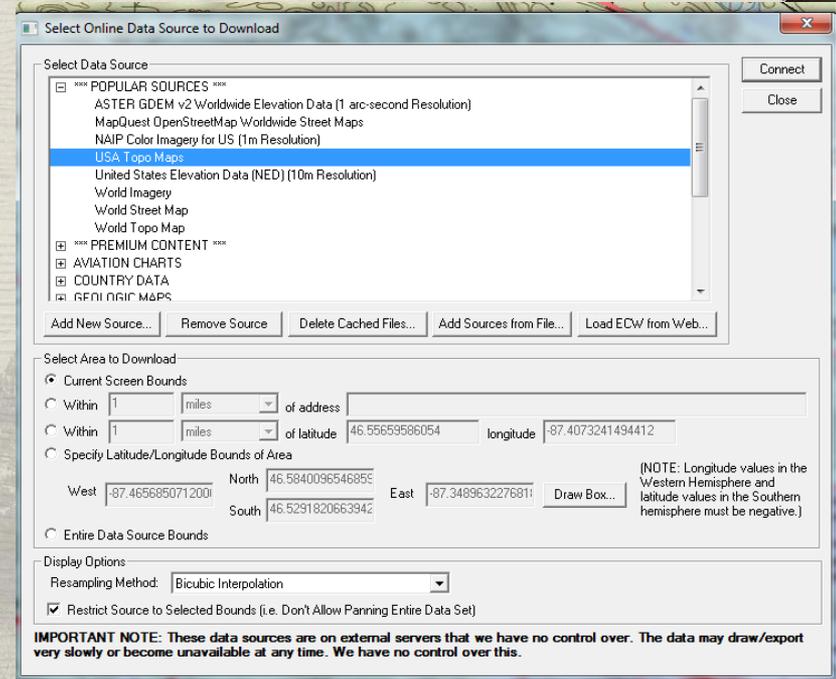
2. (Optional) To add a comment (such as a place name or address), click the location marker, and then add the information in the comment box.



Global Mapper

Global Mapper is a robust and inexpensive GIS application that combines a comprehensive array of spatial data processing tools with access to an unparalleled variety of data formats.

- Supports 250+ File Formats. This allows you to open Geospatial PDF's, import nearly any kind of file, and the other side, it's capable to export in nearly any format.
 - *Great for imagery conversions.*
- Direct access to countless free online data servers providing imagery, topographic maps, and elevation datasets for the entire world.
 - *Easily download NAIP imagery or topo maps for large or small areas. Choose from Current screen bounds, entire data source bounds or draw a box.*



Technology in the Field

Day to Day Use

- Garmin Handheld GPS units
 - Use **Mapwel** to create custom basemaps
- Paper Maps
 - Use **ArcMap** to create data driven maps to lessen re-creation



Forest Inventory

- Data Recorders
 - Flints, Forges, and Recons
- Software
 - Tcruise, Trimble Solo Forest, RTI for Solo
- Measuring Devices
 - DME's and Laser Hypsometers



and when technology fails in the field...

Dead b

App

Use

For
cou



Conclusion and Questions

“There exist limitless opportunities in every industry. Where there is an open mind, there will always be a frontier.” – Charles Kettering



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