



Geographic Information System (GIS) Software for Image Viewing INFORMATION SHEET April 2012

● What is GIS software?

GIS software can display many types of geospatial data; it is a system for spatially managing and analyzing geographic data and information.

● Why does GIS software matter to the USDA Farm Service Agency (FSA) and Aerial Photography Field Office (APFO)?

GIS software is used daily at APFO and in FSA offices throughout the country. FSA and APFO produce two main datasets: The Common Land Unit (CLU) and digital ortho imagery.

CLU is vector data. It resides in shapefile format and in geospatial databases. Digital ortho imagery is raster data. It primarily resides in TIFF, GeoTIFF, MrSID (MG2 or MG3), and JPEG2000 formats, or is accessible through web services.

This data is produced for management of USDA programs, and much of the work is done in GIS software. Currently, only the digital ortho imagery is available for public consumption.

● Are all software programs equal?

No. Software varies greatly, and in most cases the software programs are far more than mere “viewers.” Higher quality GIS software is capable of sophisticated geospatial processing. Factors affecting overall functionality include levels of licensing, speed, primary purpose for the software, and available functionality. In the end, however, the use of one product over another is left up to personal preference and financial considerations.

● How much does the software cost?

Software ranges in price from free to upwards of \$10,000, depending on levels of licensing and software extensions the user may require. Specific pricing information should be obtained directly from software vendors, as prices and products change frequently.

● What are some free software programs which can be used as data viewers?

The following is a list of some software available at no cost for viewing GIS data. Most of them have at least some GIS functionality beyond merely viewing the imagery. These companies often sell more complete software programs at a reasonable cost. The websites provide information on the viewers' capabilities.

1. TatukGIS Free Viewer Version 3.6.1.8438
<http://www.tatukgis.com/Products/EditorViewer.aspx>
2. Global Mapper version 13.1
<http://www.bluemarblegeo.com/global-mapper/>
3. PCI Geomatica FreeView Version 2012
http://www.pcigeomatics.com/index.php?option=com_content&view=article&id=91&Itemid=12
4. ESRI ArcGIS Explorer
Download website:
<http://www.esri.com/software/arcgis/explorer/index.html>
Online Version
<http://www.esri.com/software/arcgis/explorer-online/index.html>
5. LizardTech GeoViewer 5.5
<http://www.lizardtech.com/downloads/viewers.php>

● I received my digital imagery order from APFO. What should I view it with?

That depends on the product. Some viewers can view almost any product, while others can only view selected formats. The products listed above can view most imagery APFO delivers:

● What software does the Aerial Photography Field Office (APFO) use?

APFO employs the ESRI ArcGIS software suite, selected extensions, and custom tools to accomplish GIS production level work. APFO also uses other software identified in this document, in support of customer related inquiries and needs. Some areas of APFO use remote sensing software such as ERDAS Imagine, ENVI, and SocetSet.

● What about the States/FSA Service Centers?

USDA FSA State Offices and Service Centers use ArcGIS 9.2, ArcGIS Server Services and ArcSDE geodatabases for management of CLU.

● Any advice on choosing the right viewer?

Research the viewers thoroughly, especially if you are going to pay for the software. Determine what your core requirements are, the purpose for which you need the software, and identify the viewer that best meets your needs.

Consider whether you're just using the viewer to view imagery, or if you want to work with vector data (points, lines, and polygons), Global Positioning Systems (GPS) data, spreadsheets and databases as well.

Also remember that if you pay for a license, many times you need to pay annual maintenance fees to continually upgrade to the newest version without paying for the software all over again.

● Who do I contact for more information?

1. For information on data viewers, contacting software vendors directly, and browsing their website is always recommended. For more information on free GIS data viewers and viewer downloads, go to the following sites:
<http://software.geocomm.com/viewers/>
<http://gislounge.com/ll/freedataviewers.shtml>
<http://spatialnews.geocomm.com/features/viewers2002/>
2. If you have general questions about viewers, contact GIS Specialist Zack Adkins at (801) 844-2925 or GIS Specialist David Davis at (801) 844-2933.
3. For APFO sales and product information, contact USDA-FSA-APFO at 2222 W 2300 S, Salt Lake City UT, 84119-2020, call 801-844-2922, or visit www.apfo.usda.gov.

● Note to reader:

Information regarding data viewers contained within this document is provided for customer convenience only. USDA-FSA-APFO does not support or endorse these products or services.