Online Mapping Tools and Geographic Information System (GIS) Software

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Kansas State University
GIS – Geographic Information System

• What is a GIS? - a computer system for collecting, storing, displaying and analyzing geographical information

• Examples of GIS software
  – GIS software with complex analysis abilities
  – GIS software with basic analysis abilities

• Examples of Online Mapping Tools (great for displaying geospatial data)
Arc Pro Analysis Tools
QGIS Analysis Tools

All Plugins

On the left you see the list of all plugins available for your QGIS, both installed and available for download. Some plugins come with your QGIS installation while most of them are made available via the plugin repositories.

You can temporarily enable or disable a plugin. To enable or disable a plugin, click its checkbox or double-click its name.

Plugins showing in red are not loaded because there is a problem. They are also listed on the "invalid" tab. Click on the plugin name to see more details, or to reinstall or uninstall this plugin.
Google Earth - Basic Analysis Tools

- Measure
- Cross section
Online Mapping Tools – KS Water Wells
Online Mapping Tools – KS Floodplains
Online - Soil data viewer and download
NASS – Cropland Data Layer
1997-2022, 30m resolution
Download Data or Access Servers?

- If you are analyzing large datasets, it is good to work with them on your hard drive.
- If you are using a dataset that gets frequent updates, then it is good to access through a server.

– Where?
GIS Server Connection and Download

• Server Examples
  – ArcGIS Online Portal
  – Google: ______________ ArcGIS REST Services Directory
  – Kansas GIS Data Center

• Download Site Examples
  – Kansas GIS Data Center [https://www.kansasgis.org/](https://www.kansasgis.org/)
  – USDA Geospatial Data Gateway
    [https://datagateway.nrcs.usda.gov/](https://datagateway.nrcs.usda.gov/)
  – Cropland data layer
    [https://nassgeodata.gmu.edu/CropScape/](https://nassgeodata.gmu.edu/CropScape/)
  – Google: ______________ GIS data download
GIS – Geographic Information System

• What is a GIS? - a computer system for collecting, storing, displaying and analyzing geographical information

• Examples of GIS software
  – ArcPro and QGIS have complex analysis abilities
  – Google Earth Pro has basic analysis abilities

• ArcGIS Online gives you great potential for displaying geospatial data in Web Maps
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