



HGIS – A GIS Program for Hand-held Computers.

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HGIS, hand-held geographic information systems, is a GIS program designed for use in hand-held computers. HGIS is made by StarPal, Inc. in Fort Collins, CO. The software is available from a network of dealers across the country and around the world.

HGIS is designed to be easy to use, particularly for farming applications. Even though the interface is not graphical, the common GIS tasks are clearly described in the help menus. This program includes standard wizards to simplify creation of point, line, boundary and soil sample layers. For example, a wizard that takes the user through a five-step process to mark field boundaries.

One strength of HGIS compared to other GIS programs I have used in hand-held computers is its ability to geo-reference images. HGIS can be used to align images to another GIS layer such as a field boundary. It can also be used to realign an image that has already been geo-referenced but is slightly off location. Geo-referencing in HGIS is a simple process of selecting points on the image and dragging these points to known locations on the reference layer.

HGIS operates on Windows operating systems including Pocket PC and Windows CE. They also have software versions for desktop, laptop and tablet computers. HGIS creates and uses MapInfo or shapefile for spatial files. It supports JPG and BMP image formats. HGIS supports NMEA and TSIP GPS data formats. The NMEA format is a standard GPS data protocol format; TSIP GPS is a Trimble proprietary format.

The HGIS screen display includes a position window that indicates the number of GPS satellites, the position coordinates, speed, elevation, bearing and the estimated position accuracy. The position coordinates can be set to display in several coordinate systems.

A downside to HGIS is the length of time needed to load layer files. The county boundary file for North Dakota took 2 minutes to load on my hand-held computer.

HGIS is available in several options with price ranging for the HGIS Basic for approximately \$400 to HGIS Professional for approximately \$1,000. More information is available from the Starpal website at <http://www.starpal.com/>.

More information about geospatial technology is available from the NDSU Agriculture and Biosystems Engineering Department Web site at <http://www.ageng.ndsu.nodak.edu>. Follow the links to Extension Programs and Geospatial Technology Education.