

iPad App to Create Address Database

Hamilton County, USA, is using GeoSpatial Experts'™ GeoJot field data collection app on an iPad to correlate street addresses with parcel coordinates. Initiated for tax assessment and E911 purposes, this photo project is creating the rural county's™ first digital map database that matches property addresses to their correct geographic locations.

Hamilton County is rapidly updating its address and property database to meet E911 standards using the iPad and GeoSpatial Experts' [GeoJot](#) application. GeoJot is an easy-to-use app that converts an iPad or iPhone into a field data collection device. Available from the Apple App Store, GeoJot is a companion application created for exclusive use with the PC-based GPS-Photo Link photo-mapping software, also developed by GeoSpatial Experts. GeoJot for Android should be ready in April.

Introduced in 2001, GPS-Photo Link is the industry standard software for mapping photographs. The software is able to map photographs and accompanying attribute information captured with a GPS camera, smartphone with GPS, or any digital camera used in conjunction with any GPS unit. Digital map output includes Esri shapefiles and geodatabases as well as Google Earth files. The software gives photographers the ability to enter or modify photo attribute data that can be permanently written into the image's EXIF header. The user can also create customised output for data sharing including watermarked photos and reports in a variety of formats.

In 2011, [GeoSpatial Experts](#) introduced GeoJot to leverage and maximise the built-in geotagging capabilities of the camera-equipped iPad and iPhone. These mobile devices use internal GPS chips to stamp each photo with location coordinates where the photo was taken. GeoJot maximises the geotagging accuracy of the internal GPS chips by up to four times – putting it well within the accuracy specifications of many business-related photo-mapping applications.

In Hamilton County, college interns walk from house to house taking photos of each one with the iPad 2. They then key in the house number, street name and street direction to keep the Assessor's tax database up to date. These attributes, along with the GPS coordinates, are permanently linked to the correct property photo by GeoJot. Back at the Assessor's Office, the GeoJot files are uploaded to the GPS-Photo Link photo-mapping software running on a PC.

The [GPS-Photo Link](#) software correlates the photos and attributes with their geographic locations and then outputs them to the ArcGIS database used for tax assessment. This database contains a parcel layer in which each property is precisely mapped to its correct location coordinates. GPS-Photo Link uses the photo coordinates to match the street address with its parcel in the database, merging the new attributes with the existing assessment information for the first time.