

TECHNICAL DETAILS / REQUIREMENTS

- Written as a stand alone application in Visual Basic .Net
- Integrated with ESRI ArcObjects™ to handle GIS functionality
- Uses an ArcView compliant Personal Geodatabase format for data storage
- Requires:
 - Windows 2000 or later version
 - .Net Framework
 - PC meeting minimal requirements for ESRI ArcView™
 - ESRI ArcView 9.1/9.2 or ArcGIS Engine Runtime License
 - MS/B Desktop Estimators (For external valuation only. Not required to execute GeoFIT.)
- Recommended for Administration only:
 - Microsoft Access 2000 or later version
 - ESRI ArcView 9.x
 - ESRI Spatial Analyst™ for 9.x

SUPPORT

IWR-GeoFIT Website:

<http://www.iwr.usace.army.mil/inside/products/proj/softGeoFIT.cfm>

Latest versions of IWR-GeoFIT for ArcGIS 9.1 and 9.2, sample data and product documentation are available as free downloads from the website.

Free email & phone support are available.

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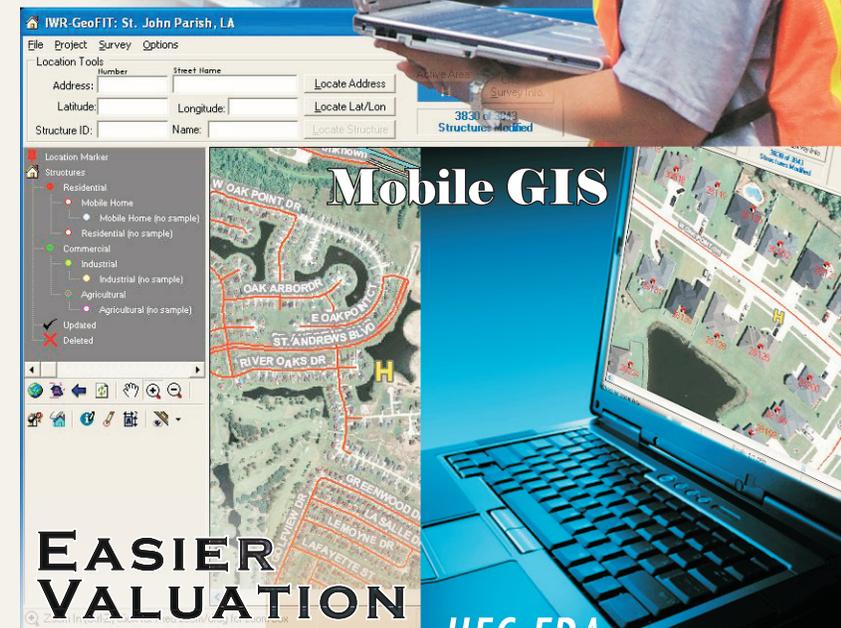
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Geospatial Floodplain Inventory Tool (IWR - GeoFIT)

FLOODPLAIN INVENTORY

Automation



Mobile GIS

EASIER VALUATION

HEC-FDA COMPATIBLE

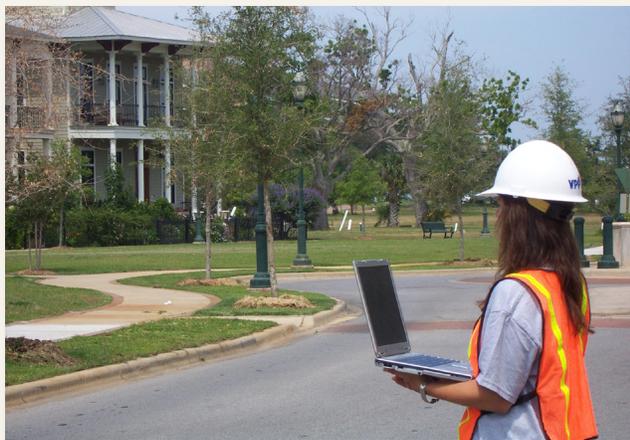


A Mobile GIS Companion Tool for HEC-FDA Structure Inventory Collection & Valuation

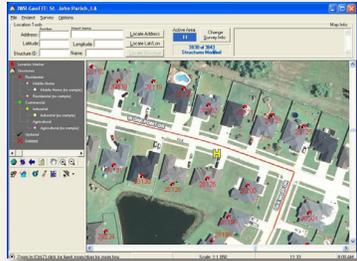
WHAT IS GeoFIT?

In order to determine the cost/benefit of new flood control structures and projects, the US Army Corps of Engineers utilizes the Hydrologic Engineering Center's Flood Damage Analysis (HEC-FDA) computer program. HEC-FDA was designed to assist USACE staff and private contractors with conducting risk analysis for flood damage reduction studies in keeping with established Corps policy (EM 1110-2-1419).

The inventory and valuation of structures in a floodplain has always been one of the most costly, time consuming and error-prone aspects of flood damage analysis, especially in large study areas. Together with the USACE Institute for Water Resources and the New Orleans District Corps of Engineers, HDR has developed a tool to automate the process of structure inventory and valuation by integrating the power of GIS, database technology & valuation software† to quickly and accurately produce building inventory inputs for HEC-FDA.

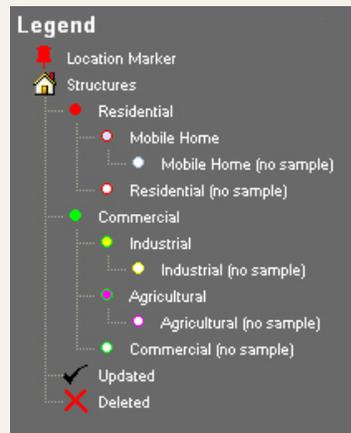
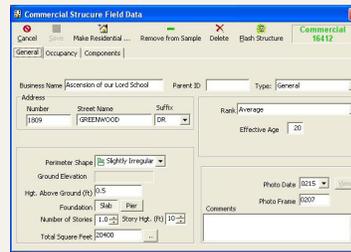


†IWR-GeoFit uses export/import functions to send and receive data to and from Marshall and Swift/Boeckh desktop estimator software. Residential Estimator 7 and Commercial Estimator 7 are the sole property of Marshall and Swift/Boeckh and are no way directly affiliated with IWR-GeoFIT. HDR does not claim that IWR-GeoFIT has internal valuation capabilities or utilizes proprietary portions of the Marshall and Swift /Boeckh Estimators in any way. A separate purchase of Residential and Commercial Estimator 7 may be required to take advantage of valuation functionality.



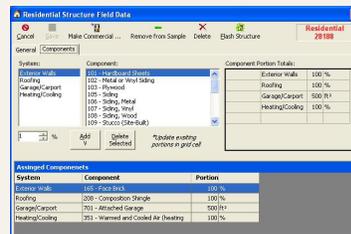
MOBILE GIS INVENTORY

The Geospatial Floodplain Inventory Tool (IWR-GeoFIT) is a mobile GIS application built with ESRI's ArcGIS™ technology designed for use on laptop or tablet PCs in the field. Integrated location functionality allows field crews to quickly locate a structure based on street address or GPS coordinate. On-screen map displays can be customized to show the highest quality aerial photography or pre-loaded building footprints, while color coded point symbols quickly identify the type of structures present in an area and whether or not they are to be included in the study. IWR-GeoFIT provides users with user-friendly data entry forms customized for commercial or residential properties, completely eliminating the need for field crews to manage paper forms. At the end of the day the valuation data collected using IWR-GeoFIT can be directly imported to the data management systems back at the office, avoiding the possibility of introducing additional errors from keypunching of handwritten information.



INTEGRATION WITH VALUATION SOFTWARE

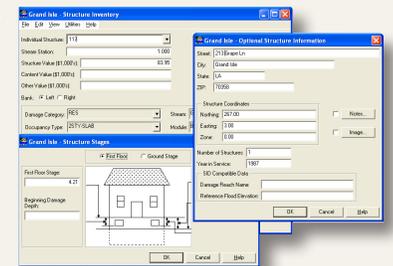
The flood damage risk analysis process requires the use of Marshall & Swift /Boeckh's (MS/B) Residential Estimator 7 and Commercial Estimator 7 valuation software. IWR-GeoFIT includes an export function which produces structure valuation data in the required format for both of those programs, thereby eliminating the need for time-consuming and error-prone keypunching of structure



data into valuation software. Built-in batch calculation tools can perform valuations for thousands of structures in just a few minutes, saving weeks of effort for manual valuation of large study areas.

HEC-FDA EXPORT

After valuation is completed, IWR-GeoFIT allows for easy export to a HEC-FDA compliant structure inventory file. Using standard semi-automated GIS techniques, the valued structures are assigned HEC-FDA Station IDs, Stream Names and Damage Category codes. A simple export command will then create the HEC-FDA inventory file ready for inclusion in the HEC-FDA Study project.



BENEFITS

- Location tools help field crews to quickly find structures based on street address or geographic coordinates
- Digital data entry forms use dropdowns and auto-complete fields to reduce time and errors in field data collection
- Automated data validation prevents field crews from saving records missing required data or containing invalid data
- Aerial photography in mobile GIS display greatly reduces the need to examine unwieldy paper maps in the field.
- Digital data capture in the field and automated import/export functions eliminate the need to re-type inventory data from field to reports to valuation software to HEC-FDA.
- Geodatabase of structure valuation data can be used for map creation, report generation and secondary GIS analysis in ArcGIS.
- Project specific and flexible while standardizing the business process of structure inventory and valuation.

