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WINGIS - GIS SOFTWARE FOR ICT DEVELOPERS

W. Mayer, B. Aigner

PROGIS Software GmbH, GIS Development, Postgasse 6, 9500, Villach, Austria

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ABSTRACT:

PROGIS enables ICT developers to link the GIS software WinGIS, in combination with the embedded Bing Maps module to any database application based on the ActiveX developer component AXWinGIS. WinGIS provides a wide range of GIS functionalities, modules (thematic maps, ISO module, GPS modules, geocoding module) and interfaces (import / export / GPS). This is a worldwide unique solution, bringing together the advantages of an easy to use, cost efficient and versatile GIS software - WinGIS - and the outstanding potential of Microsoft (database) products and online services like Bing Maps.
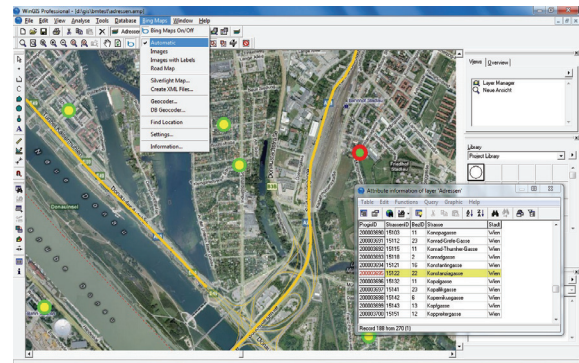
1. WINGIS – GEOGRAPHIC INFORMATION SYSTEM

WinGIS is an easy to use, easy to learn, powerful and cost efficient GIS software with extensive geographic application possibilities and facilities. Due to the integration of the online map data of Microsoft Bing Maps as „embedded Module", the access to worldwide available geographic data like satellite and aerial images, road maps and address databases is already part of the software package. By using the ActiveX developer component, application developers have the possibility to link their application very easy with WinGIS in order to visualize, edit and administrate any data with a geographic relation.

2. MICROSOFT BING MAPS

Microsoft Bing Maps provides worldwide in high quality and continuous expanding online map data such as satellite and aerial images, road maps and extensive address databses (geocoding). The access to these geo data is integrated in WinGIS as a module and works transaction based. The access to the map data of Microsoft Bing Maps occurs online and transaction based (1 transaction = 8 image tiles with 256x256 pixels). To activate the access to Bing Maps you order a number of transactions to get your personal Bing Maps account (login data). Image tiles which are were already loaded keeps stored for 24 hours on the harddisk (cache). Therefor the online access and the transaction counting is limited to new image tiles only. Bing Maps provides continuous expanding and worldwide available map data like satellite images, im wide areas available aerial images with a resolution up to 30cm (e.g. in Europe, North America and also most of the urban regions worldwide), road maps and hybrid maps (aerial images with labels and overlayed road map).

The extensive Bing Maps online address database enables the WinGIS integrated Geocoder module to convert an address information (e.g. city, street, street number) to the corresponding coordinate (address search). The Bing Maps DB-Geocoder module converts addresses of entire database tables to the corresponding coordinates. After selection of the database (e.g. MS Access mdb file), the table and the query fields (e.g. street, city, country), for every record an online transaction converts the address to a coordinate and adds X and Y fields to the table. Therefore you get an easy and efficient possibility to locate and visualize your personal database content (e.g. customer databases).
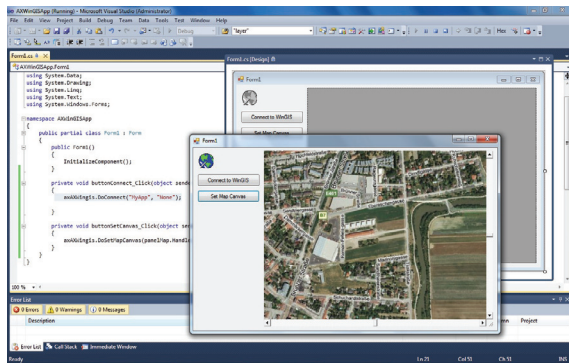

3. AXWINGIS – DEVELOPER COMPONENT

The ActiveX component AXWinGIS enables the communication between an application and WinGIS. The whole function set and every menu entry can be called directly from the application. The communication works bidirectional. Events in WinGIS (e.g. the selection of an area) are sent to the application and can be related to the corresponding database entries (attribute information).
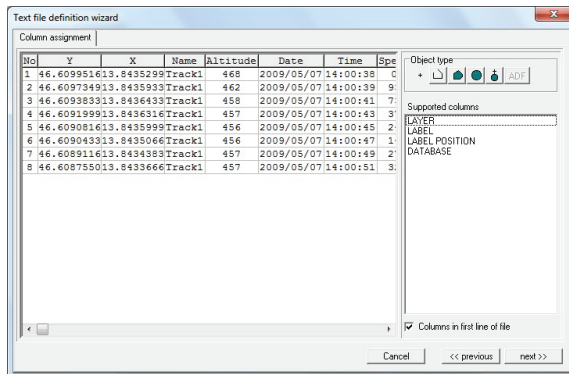
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4. WINGIS CANVAS – DIRECT INTEGRATION OF A WINGIS MAP IN THE USER INTERFACE OF AN APPLICATION

WinGIS can run as an indepenent program with the full available user interface (menus, toolbars) beside the application, but also as an embedded map control ("Canvas"). In the user interface of the application a region or window control (e.g. panel) is reserved for the map. By calling the according AXWinGIS function, the visualization of the map takes place on the defined region of the application window.
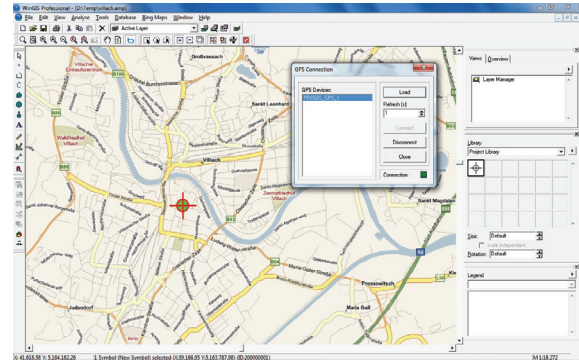

5. WORKING WITH GPS DATA

WinGIS Professional a wide range of functionalities to visualize and process GPS data. GPS recordings and the corresponding attribute data can be loaded from table stuctured data sources (e.g. text / GPX / CSV files, database tables) to WinGIS by an free defineable import interface. GPS data can also be read directly from GPS devices over USB cable or Bluetooth connection.
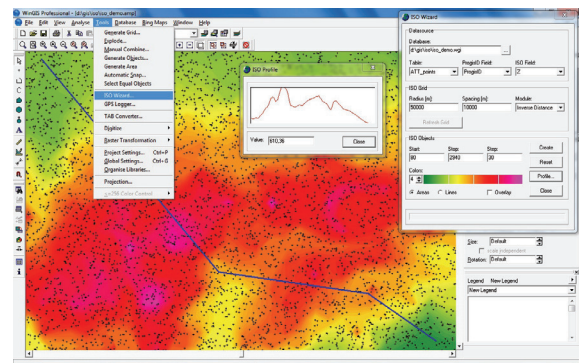

6. LIVE-GPS – TRACKING OF GPS POSITIONS IN REAL TIME

A GPS server interface receives position data and status information (e.g. current activity) from mobile devices (PDA, GPS supporting mobile phones, ...). WinGIS enables you to connect objects (symbols) with the current position data from the server in order to track these positions in real time.

7. ISO WIZZARD

This module is used for creating ISO lines and areas. The data source is a table in the internal database (IDB) but also any external database which contains geographical information (X,Y coordinates). Each ISO level is stored on a separate layer in the WinGIS project.

8. PRODUCTS AND PROJECTS

AGROffice, Dokuplant, LoGIStik, PipeGIS, FOMUMIIS, BAU-MATIC, TREE-MATIC, Z-GIS (NOE ABB), OIS – object information system for fire brigades, PROGIS MapServer for the ORF Reality Show "Taxi Orange", several GeoINFOtainment und geo marketing projects.

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