

# Cemetery Management Information System with TatukGIS



AXIOM Business GIS Solutions, located in Cakovec, Croatia, has used the TatukGIS Developer Kernel (VCL and Compact Framework editions) to develop the Axiom Memento cemetery management information system. This solution is used in Croatia and the western Balkan region to manage approximately 1,000 cemeteries ranging in size from a few hundred to hundreds of thousands of graves.

AXIOM is looking for partners to expand its cemetery management solution to new geographical markets.

According to TatukGIS, the [Axiom Memento Map](#) module handles large cemeteries with ease, featuring support for industry-standard GIS vector (like

ESRI SHP, Bentley Microstation DGN, OpenGIS SQL layer) and raster (JPEG, TIFF, PNG) map data formats. The Map Editor derives from features of the Developer Kernel a set of tools for vectorisation of orthophotos and scanned maps and creation of cemetery expansion plans. Specialised vector drawing and editing tools include rotated rectangle, 3-point circle, 90° line and polygon, free line and polygon, copy, move, rotate, numbering and labelling, area and distance measurement, real world coordinate editing, etc.

## Link with database

[Axiom Memento](#) supports binding (joining) vector cemetery maps to gravesite data held in a database. The joined data can be queried in the database using various criteria with the results displayed on map. Records in the database can be looked up by performing spatial selections on the map or by “drilling down” through the map user interface into the database.

## GPS-enabled handhelds and kiosk

The Axiom Memento Mobile GIS module runs on GPS-enabled handheld computers for ready access to gravesite information when and where it is needed. The mobile application presents the map user interface with GIS positioning. Data is automatically synchronised with the main database server. The Mobile GIS module was developed using the Compact Framework edition of the TatukGIS Developer Kernel, a GIS SDK for development of applications for handheld computers running the Windows Mobile or CE operating systems.

The Axiom Memento Web GIS module runs on the Windows Azure cloud server to present gravesite maps and data over the internet to help families and other visitors locate gravesites. The same data is used for a kiosk application that can be placed anywhere at the cemetery.

## GIS linked with invoicing

In addition to GIS related modules, the Axiom Memento Invoicing and Accounting module uses gravesite data to generate standardised invoices for thousands of gravesite maintenance or other services, as well as customised invoices for non-standard items. Invoices can be barcoded for fast payment registration. Payment records editing is very simple but powerful, with many reporting options.

AXIOM Business GIS Solutions has been a steady TatukGIS customer for ten years, using mostly the GIS Developer Kernel VCL edition with Delphi to develop GIS-data-centric applications for customers who appreciate how GIS modules empower their business processes (mainly utility companies and municipalities). AXIOM reports that using the TatukGIS SDK to develop really custom and royalty-free GIS applications beats the alternative, which is writing plug-ins for popular GIS packages. AXIOM likes most about the TatukGIS DK component the great support for the Embarcadero Delphi development environment, native support for a variety of map data formats, and the handling of huge orthophoto aerial images. The TatukGIS supports different development platforms (desktop, mobile, web).

*Image: Drilling down through the map into the gravesite database.*

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