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ONE SYSTEM ANY SCALE

By Larry Newman



In my last article, I described a variety of applications that computerized mapping, or GIS, technology can be used for in a religious environment. We then attended, displayed, and presented at the 2012 DISC conference in Arlington. One of the GIS applications we were demonstrating that drew a lot of attention was cemetery mapping. Cemetery mapping is an example of one of the smallest scale implementations of GIS that is applicable to the church, and so I thought I would focus on this application in this month's column and then "work my way up" in scale over the next several months, further describing the One System – Any Scale use of this technology.

A church's cemetery represents the history of the community. In most cemeteries, gravestones can be found that date back decades. In some parishes, gravestones date back to the mid-19th century or even earlier. Cemeteries were often established surrounding the original church structure, providing a tangible link between the then-current parishioners and their ancestors. When the church community expands, new lands are acquired and facilities are built. However, the original cemeteries are often still active, with additional plots being established and burials taking place. In large church communities or parishes with an older population, burials may be taking place several times a week. In newer or younger communi-

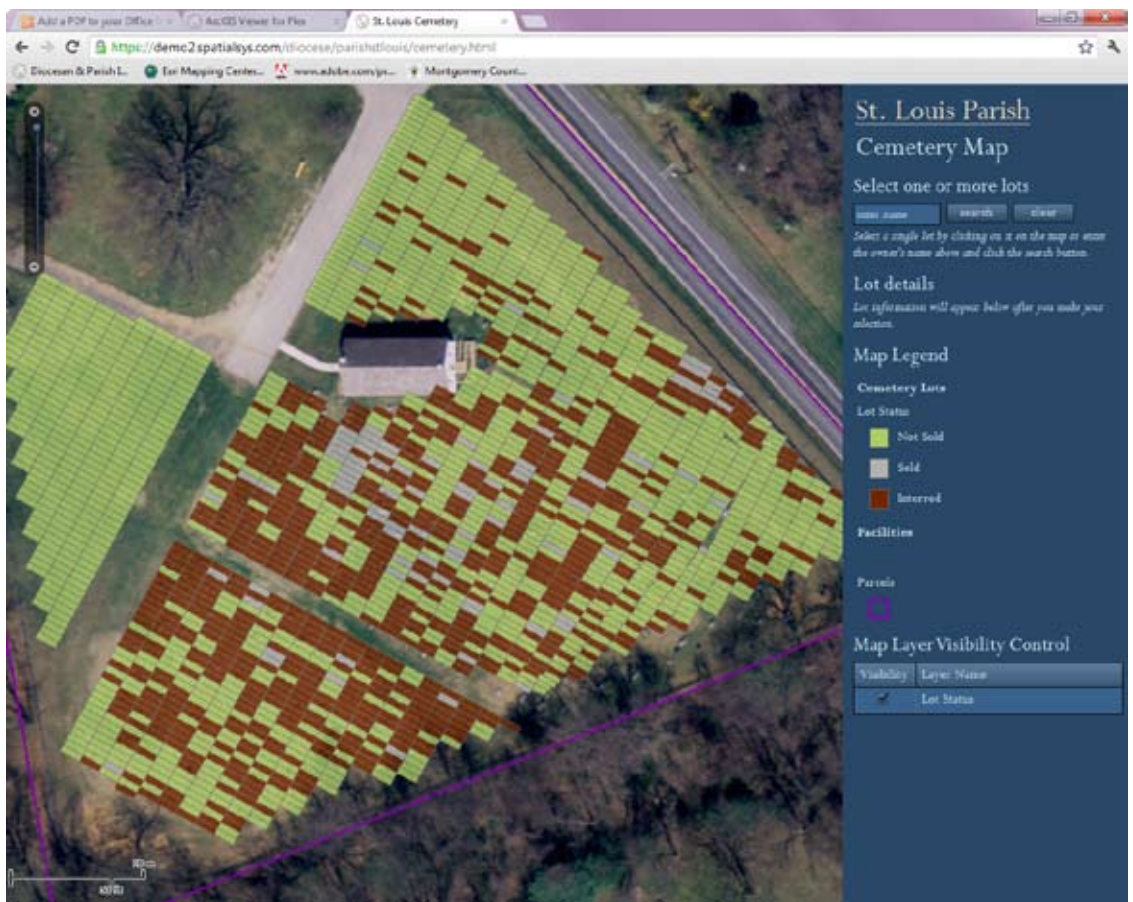
ties, burials may only occur a couple of times each year. Eventually a cemetery is filled to capacity, and a new cemetery needs to be established if the church community is still vibrant.

Church or diocesan cemeteries serve as a link to the community's history, a final resting place for family members, and yes, a source of revenue for the church itself. Normally individual plots are sold with the understanding that the sale price comes with a promise of perpetual care. The church takes responsibility for maintaining the grounds—cutting and trimming the grass, caring for the grave markers, maintaining whatever road or other infrastructure is associated with the cemetery, and perhaps operating and maintaining an on-site chapel or

other structures. These maintenance functions require at least some expenditure of funds, even if the cemetery itself is full. A portion of the sale price of the plot therefore needs to be set aside in trust for use to pay these maintenance expenses. As time goes by and costs increase due to inflation, these maintenance costs will also rise. The funds held in trust need to generate sufficient income to cover today's maintenance costs while growing in value with inflation to be able to generate future income to cover future maintenance costs.

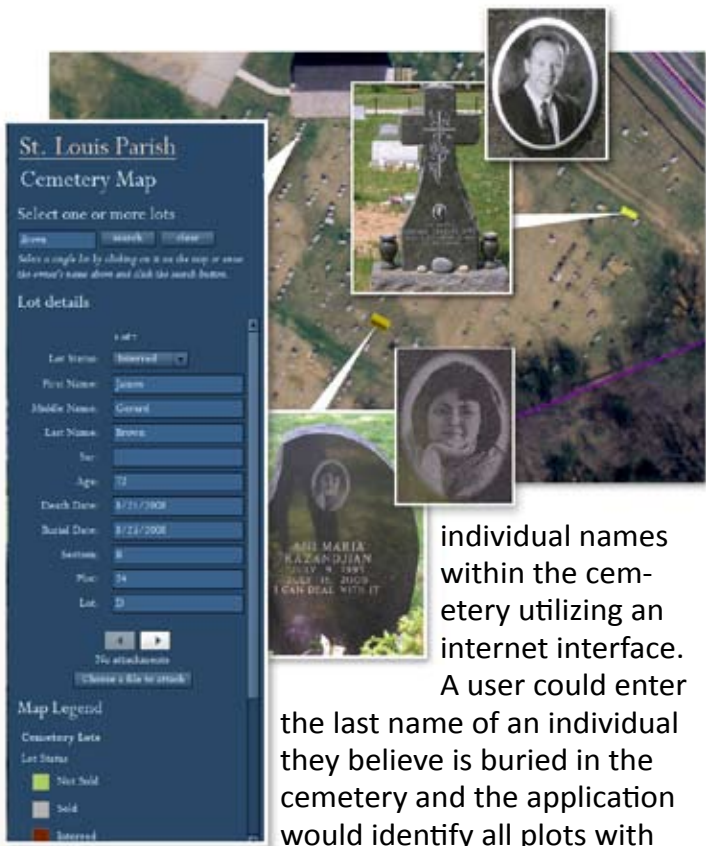
Representing the church's history, the records of the cemetery should also be maintained. Historical information about the individuals interred and perhaps even some information about their lives and contributions provide the legacy of the church community. As an active business, records regarding the location of individual plots, whether or not the plot has been sold, who is the current owner, whether or not an individual has been interred in the plot, and when the interment took place becomes an information system that can be automated. When this information system establishes a link between the data and a physical location in the cemetery, the need for use of a mapping system, or Geographic Information System (GIS), becomes evident. Such a geographically enabled Cemetery Management Application could utilize the internet to create a web-based viewer designed with the end user in mind. There are a variety of intended users for such an application:

- **The cemetery management personnel** - The application would map the location of individual plots within the cemetery. These plots would be represented by polygons that are overlaid on a map of the cemetery grounds. Individual plots would be linked to records in a database. The database would contain information about the status of the plot (available, sold, occupied), the owner of the plot, if a burial has taken place who has been interred along with information about the individual. The application could also provide reports regarding the acreage of the cemetery (for mowing and fertilizing purposes), the number of interred plots (for estimating trimming requirements), the number of unsold plots, etc. Graphically, the



application would provide the ability to visually understand the locations within the cemetery where plots are available for sale or where resale of plots may be an opportunity.

- **Family members or interested parties** - The application would provide the ability to locate



Church, however it is both a source of revenue and an ongoing obligation. We have developed a web-based cemetery management application as described above that provides a tool to organize cemetery information utilizing current technology while providing an additional service to families. If a parish is already utilizing a database of information regarding their cemetery, but that system does not include a mapping or an internet component, this application can facilitate integration of the existing data into a web-based and map-based system such as the one described herein.

One System – Any Scale. Next month we will describe how a facilities management system, based on the same GIS technology, can be used in a stewardship role to save operating dollars while preserving God’s creation.



individual names within the cemetery utilizing an internet interface.

A user could enter the last name of an individual they believe is buried in the cemetery and the application would identify all plots with an interment

by that name. The application could also display the current location of the requesting device (i.e. iPhone) along with the location of the selected interred individual, thus assisting in locating a particular plot that the user would like to visit. The cemetery application could also provide the opportunity for a family member to store information about the individual interred—biographical data, ancestry, pictures, and other records. This information could then be made available over the internet for any individual who may be visiting the cemetery and is interested in finding out about the life of someone whose grave they are in front of.

A cemetery is an often overlooked part of the business of the



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