



Address Management: Are We There Yet?

Background

Emergency dispatching, transportation routing and address matching are perhaps the most central and vital tasks of any well-developed GIS. At the heart of these applications lies the street network, where data currency and accuracy is imperative. While extremely crucial, multi-agency collaboration and development of maintenance procedures can sometimes prove to be a daunting task.

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento Region. With 6 counties and 22 cities SACOG has worked to promote data sharing in support of regional projects like the regional long-range transportation plan. In one such effort, SACOG needed to develop a regional address management portal providing member agencies the ability to contribute and update the regional street address centerline file in support of public safety and transportation planning requirements. The goal was to allow regional agency partners to directly submit proposed edits to the address ranged street network while providing administrative level QA/QC review and acceptance of all submitted edits. Additionally the application had to create a new master street network centerline file on a monthly basis for membership download. The web enabled ArcGIS Server based solution developed by GeoPrise has helped meet SACOG's objectives by providing over 18,000 edits to a shared street network via the internet and setting the standard for regional data sharing and development.

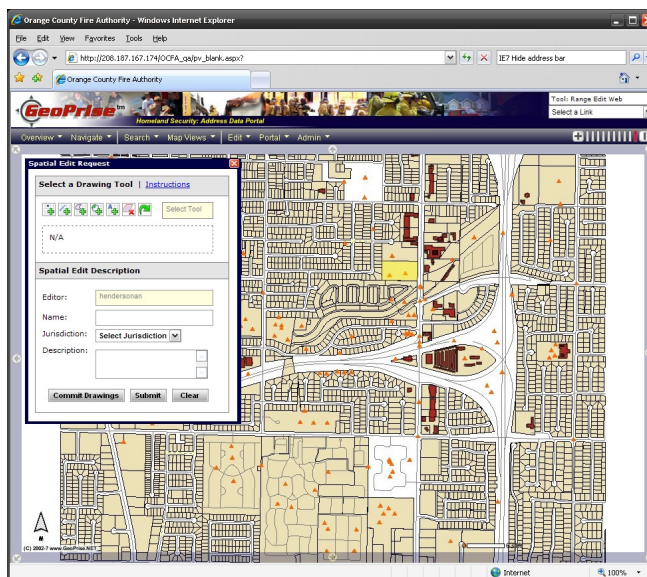
The Solution

To meet the project goals the GeoPrise Address Data Portal (ADP) application was implemented to provide the ability to directly select and update centerline address range values while supporting industry standard address range error checking in an easy to use web based mapping interface. The application also allows users to add new streets and addresses as a pending redline street addition.

Administratively the application provides easy tracking, review and acceptance tools so that all pending edits are reviewed and incorporated into a new street centerline file every 30 days.

The application uses standard GIS tools and on-the-fly automatic error checking providing users an easy to use interface for checking and updating address range and street name components for the regional file. Automatic user and edit tracking provides a clear and easily managed audit/approval trail for managers to monitor and process edits into the master street file.

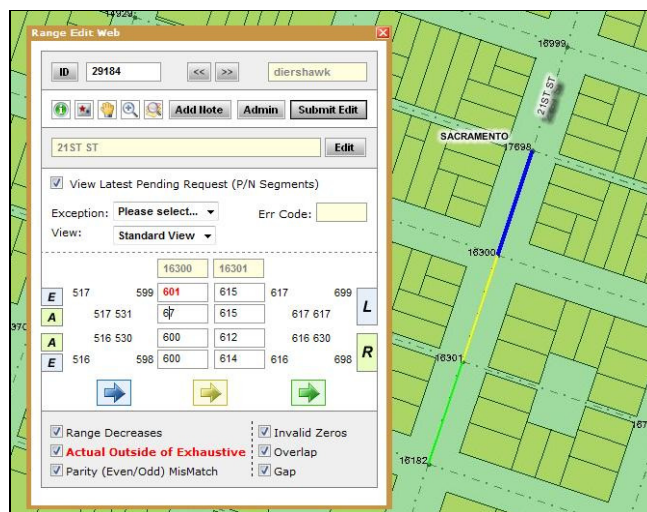
An integrated data synchronization process performs the monthly master update and data posting process resulting in a new master data set being posted to the integrated document management (DMS). The DMS provides managed document posting and download capabilities. Members use this utility to forward new development documents and to download the latest street files for inclusion in their local computer aided dispatch and GIS applications.



“The GeoPrise ADP address portal is really making my life easier. I've been able to officially "retire" the old web site and transfer the technical documents to the portal. Congratulations on a job well done in a short amount of time.” - Steve Hossack, Senior GIS Analyst, Sacramento Area Council Of Governments

The Results

The GeoPrise ADP application has been very successful in meeting all of the project goals. The first year ROI was 1.25 FTE positions spread amongst just 4 of the original participating agencies. This equates to a quantitative **ROI in excess of \$100,000 per year** to start, while simultaneously producing a higher quality product. The web based tools also produces cost avoidance for tools and specialty staff no longer required at the local level. As other agencies have opted to begin participating, the ROI has steadily increased.



Quantitative ROI Realized by the Sacramento Regional GIS Cooperative

- 25% of one person year reduction in labor requirements at Sacramento Area Council Of Governments (Eliminating data correction and editing processes)
- 50% of one person year reduction in labor requirements at Sacramento Regional Fire/EMS Communications Center (Eliminating duplicate data entry and data maintenance processes)
- 25% of one person year reduction in labor requirements at Sacramento City Police Dept (Eliminating duplicate data entry and data maintenance processes)
- 25% of one person year reduction in labor requirements at Sacramento County (Eliminating data correction and editing processes)
- The above mentioned labor reductions can be used to calculate a collective **Annual ROI of \$91,000** for the Sacramento Regional GIS Cooperative members (125% of a position with a conservatively estimated hourly rate of \$35)

Qualitative ROI Realized by the Sacramento Regional GIS Cooperative

Some of the following items do also have real dollar value, however they are difficult to quantify so they are grouped in the qualitative category.

- Improved overall data accuracy and use
- Improved hit rates by Emergency Dispatching (officers respond more accurately)
- Improved cooperation among Agencies
- Improved ability to plan workload and distribute maintenance processing according to individual schedules
- Shifts the responsibility of data accuracy to the actual data owners, who are best equipped to assess a change request in their jurisdiction
- Reduction in data maintenance and correction correspondence requirements between Agencies
- Reduction of conflict between Agencies
- Reduction in time period required for monthly build processing (Originally 1 week down to less than 1 day)