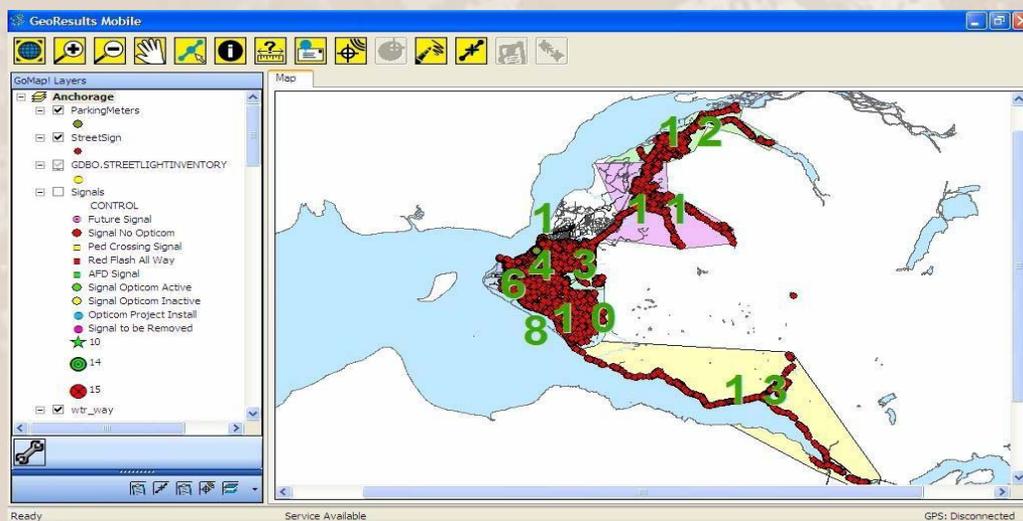


ALASKA EMPLOYS XPLORE FOR LARGE SCALE TRAFFIC INVENTORY

The municipality of Anchorage, Alaska was faced with a challenge. Dependent on a paper record keeping system for tracking its 65,000 street signs, Anchorage was not able to fully comply with Title 9 of its municipal code. The code required Anchorage to maintain an accurate record of its traffic control devices for maintenance and operation. Associate traffic engineer, Lee Coop, municipal traffic engineer Bob Keniefel, and foreman Dan Carlson were assigned by Anchorage to help spearhead the task.

“We were given a \$1.5 million state grant to implement a cost-effective solution that would allow us to digitally inventory our traffic control devices,” says Coop. “With Alaska’s short summer season, we knew we were up against the clock to complete the inventory process before winter. After talking to our team, we knew we needed specialized GIS software and a rugged mobile computer that could deal with the climate issues so we turned to Marshall, a GIS software development company, for guidance.”



Rhett Harman, Senior Project Manager at Marshall, helped implement the GIS Software for Anchorage. “We provided GeoResults Mobile Software, which allows field users to perform inspections, and inventory their assets in a wireless disconnected or intermittent connected environment. Moreover, it can integrate with asset management systems. The next question was what rugged mobile tablet would best suit Anchorage’s needs.”

After looking at their mobile computing options, Marshall recommended Xplore’s ix104C3 mobile tablet PC to the municipality of Anchorage. “First, we needed to make sure the units were compatible with Marshall software,” continues Harman. “It was also important that the tablet offer pen compatibility to do redlining and map interactivity. Without pen computing, it would have been trickier to use the software because there are drop down menus for capturing assets and interacting with GPS. The Xplore mobile units provided this kind of functionality.” Moreover, with Xplore’s GPS integration, the units had no external cables to hinder usability of the product in the field.

Alaska's terrain and short outdoor work season were also factors Coop and his task force considered in choosing Xplore. "To catalogue the 65,000 signs, Anchorage was going to assign 11 interns to begin collecting asset data in June of 2006. The interns would work four days a week with ten hour work days. To do this, good screen viewability in the sun, the tablet's ability to withstand water and submersion due to rain, and extended battery life were all critical. The Xplore ix104C3 tablet uses a 55 volt battery. Two batteries would allow an intern to work in the field continuously for ten hours uninterrupted," says Coop.

Anchorage wanted to begin the project in June of 2006 and finish the base data collection by August 30th. In order to achieve that goal, Harman realized that they would need the units immediately. "Normally, vendors are not able to turn around orders quickly. However, Xplore was able to comply with the quick turn-around requirement crucial to Anchorage's project timeline."

Once Anchorage received the units, the interns and sign shop workers were brought up to speed on the GeoResults Mobile software and its interface with the Xplore tablets. "It was very important that the entire system be user friendly. It only took us 3-4 days to train our permanent workers and interns on the devices," says Coop.

In the field, the interns were able to document each sign location. GIS blue tooth with camera hook-up sends the assets wirelessly to the Xplore tablet which records the GPS location and all of its attributes: condition, height from the street, type of device, and its age. There is a five-year replacement time on traffic control signs. The quick learning curve on the Marshall software and Xplore tablets enabled the field workers to inventory about a 1,000 signs a day and actually complete the project earlier than projected.



With the new inventory of traffic control devices in place, Anchorage can now move to the next phase with an asset management system. "The old paper-based system we had of record keeping caused Anchorage a lot of problems. Especially where public safety was concerned" says Coop. "There were gaps in our information about poor condition signs and when to replace them. We had to rely on paper documentation or when a complaint was issued. Developers or road project workers often put up their own signs and these are not always authorized so a record of them doesn't exist," explains Coop. "The new digital inventory allows us a check on the system. Now we can query our digital inventory for 'poor condition signs,' by 'customer complained about signs' or other queries without having to send someone out in the field to do a check."

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