Subway Environmental Inspection

Client

Major Metropolitan Area Transit Agency

Problem

A major metropolitan transit agency needed to perform an environmental inspection of tunnels, stations and rooms. In particular, they were interested in evaluating asbestos-containing materials. Having performed these lengthy inspections in the past using paper forms, the agency wanted to upgrade to a computerized, handheld data collection system that would allow them to collect, store and report on inspections from a central database.

In order to deploy inspectors in the tunnels and stations, they wished to use handheld computers to collect the data at the point of work. The inspection process had been very time consuming in the past, with many different assets, locations and material types to document. Because of this, they looked to computerized data collection in tandem with an efficient questionnaire methodology that would allow them to collect the data as accurately and efficiently as possible.

Scope

Warshaw Group provided:

- Development of inspection methodology to facilitate the collection of the maximum amount of relevant information in a time saving manner
- Mobile Validity® Questionnaire Developer to create an computerized data collection platform that supported the developed methodology
- Updating functionality to dynamically add electronic data collection attribute fields as inspections were executed
- Mobile Validity® Data Entry Modules loaded onto mobile computers
- Mobile Validity® Report Server and Filter Builder to create a series of custom reports for analysis of subway materials and conditions
- Custom software to allow a testing laboratory to export material sample testing results to the system
- System administrator training and support

- Software training
- Support and maintenance

Solution/Benefits

The new solution allowed the transportation agency to insure completeness of data collection and obtain greater accuracy in their data collection efforts, with data updated regularly to the central database. They were also able to connect lab results to the system for more relevant and timely reporting.

By using optimized handheld software and deploying mobile computers at the point of work, the agency was able to reduce inspection time while eliminating secondary data entry tasks. The reporting system allowed agency personnel to have access to critical data and to run sophisticated and timely reports. The system allowed the agency to reap both productivity and data quality gains.