Capturx Case Study

MACTEC Engineering

capturx™
FOR ENGINEERING SERVICES

Summary

Customer: MACTEC an industry leader in engineering, environmental, and construction firm, inspecting over 56 million square feet of facilities.

Challenge: Expensive manual data entry processing for hand-written inspection data, slows inspection cycle and delays projects.

Solution: Capturx Forms for Excel to automatically digitize and integrate data into Excel.

Results: By automating data entry teams no longer have to spend the extra time completing expensive data entry. Inspections are streamlined, cheaper, and completed faster!

Capturx Automates Inspection Paper-work: Increasing Engineer Productivity and Speeding Up Inspection Cycles

MACTEC is an industry leader in engineering, environmental, and construction services consistently earning a top spot on the Engineering News- Record list of top design firms. Engineers at MACTEC collect and work with large amounts of data related to services for design, design/build, construction, and construction oversight of mission-critical facilities, as well as, facilities operations, asset management and repair for government entities.

As part of MACTEC's work with the government, their teams have inspected facilities at more than 23 sites and 56 million square feet from Pearl Harbor to Jacksonville. Engineers typically collect a great deal of data using printed building plans and forms for facility lifecycle management, including: super structure, HVAC systems, roof systems, lighting systems, cold storage, and more.

Challenge:
Data Entry is Expensive and Slows Inspection Cycles

With such large amounts and various types of data to collect, MACTEC was looking for ways to maximize the time engineers spent in the field and to minimize time spent processing inspection forms for facility reports.

Engineers assess large facilities and structural assets to provide reports and recommendations for construction, maintenance, and repair. Paper forms are used to document land and building data at field locations, as well as, collect and manage data for existing buildings and infrastructure.

When inspections are complete, the data needs to be processed in a timely and accurate manner. That processing includes assembling data for reporting, analysis, and presentation to clients. A big part of the effort was manual data entry into the back-end system for analysis and reports. Traditionally this data management and reporting process took an additional 1 to 1.5 hours back at the office per inspection.

The more time engineers spend processing paperwork, the less time they spend on site collecting and analyzing for projects. The time-consuming data entry and reporting process resulted in extended inspection cycles and, delayed the start of new inspections. MACTEC wanted to streamline data processing to improve inspection productivity.

MACTEC had worked with scanning technology to convert forms to electronic images but since the scanners weren't on site, the process still required multiple visits, with incomplete data, and delayed access to data. Mobile computers like PDAs or laptops were ruled out because of their expense, additional support burden, and workflow changes for these highly mobile workers. Their goal was to keep the paper-based data collection process, but to speed up the data management and entry.

capturx™
FOR ENGINEERING SERVICES

"The greatest thing is that it doesn't have to change our company's time tested field processes in order to improve the speed that the information gets collected in the field and reported out to our clients."

PEYTON PARK
Principal Engineer
MACTEC

Solution: Capturx Forms for Excel

To streamline data entry and maximize inspector time in the field, MACTEC chose Capturx Forms for Excel for automating facilities, inspections, and maintenance paperwork. With Capturx, teams can eliminate data entry time and improve costs for completing inspections without the risk of missing documents. Capturx software and digital pens enabled engineers to continue collecting data on site using pens and their familiar paper forms, without changing their workflow.

"*The greatest thing is that it doesn't have to change our company's time tested field processes in order to improve the speed that the information gets collected in the field and reported out to our clients*" says Peyton Park, Principal Engineer of MACTEC.

As the inspector writes on the form using the digital pen, it creates a normal ink record of the data collected on paper while also making a digital copy which is stored in the pen's memory. Each stroke of the pen on the paper form creates new digitized data. When the pen is docked into its USB port on a PC or laptop, the field data is formatted and automatically integrated into Excel. There is no new technology to learn or data to re-enter.

Results

Eliminate Data Entry Time and Costs

With Capturx, engineers no longer have to spend time manually scanning or entering data from paper. It's digitized as they write. When the pen is docked to a PC, the data is instantly available for uploading, reviewing, and sharing.

Less Administrative Work- More Inspections

Capturx not only reduces the time and expense of processing paper-based data, but it also enables inspectors to stay in the field longer and complete more inspections. Now engineers perform and record inspection results without having to wait, return to the office, and manually enter data into their PCs.

Works the Way They Work

MACTEC was able to automated inspection data collection without changing their simple and reliable paper-based process. The pen is durable, easy to carry, and the data upload can be performed by nearly anyone. When the pen is docked to a PC, the data is instantly available for editing or upload. Unlike mobile computers, software for digital pens does not require complex training, support, or suffer from limited use in harsh environments.