TURNING CAD DATA INTO PORTABLE, INTERACTIVE MAPS

Seattle City Light is the 10th largest public electric utility in the United States. It has some of the lowest cost customer rates of any urban utility – providing reliable, renewable and environmentally responsible power to nearly one million Seattle area residents.

THE CHALLENGE

Seattle City Light employs over 1,800 individuals; a significant number of these employees are involved in field work to manage the distribution system that provides reliable electrical service to residential, commercial and government customers.

In the past, when service issues occurred and repair or maintenance was needed, field crews would be dispatched to identify and implement a solution. With their "flat" map system housed in a Computer-Aided Design (CAD) environment, Seattle City Light crews would heavily rely on radio communications with the System Control Center – the nucleus of Seattle City Light's distribution operations. The System Control Center personnel would search the CAD database for the impacted distribution network components to help locate the root cause and identify a solution to the problem. After the crews identified a solution and determined what materials and equipment they needed, they would return to their service center to collect the needed materials and then head back out to the problem location to correct it.
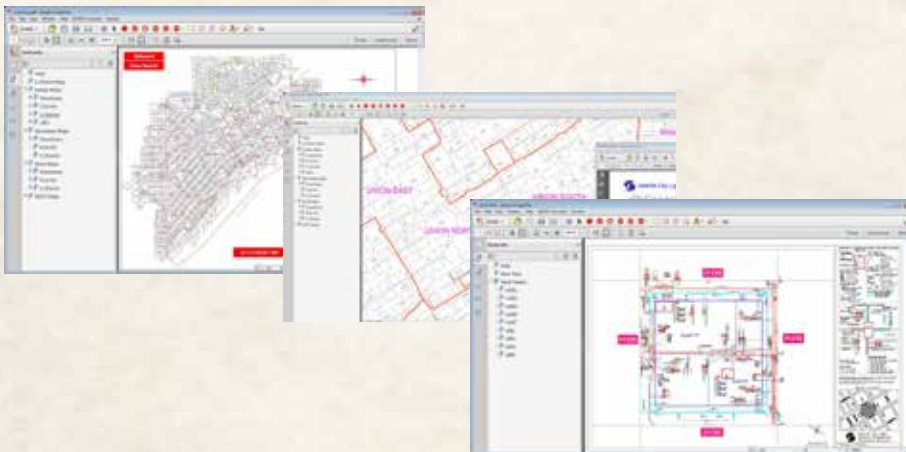
Those were a lot of steps to solve a single issue. Now, multiply that by more than a hundred field crews and a service territory that includes a dense downtown core, heavy and light industrial commercial customers and urban residential areas.

Seattle City Light utilized TerraGo Composer to create a searchable GeoPDF map database and viewer that brought the data-rich maps from their CAD system to the end user laptop.

TESTIMONIAL

"With TerraGo, we were able to create a GeoPDF database that houses all of the maps and other information – such as photos of the interiors of underground facilities – pertaining to Seattle City Light's electrical system. Now, our crews and other personnel, with or without professional GIS experience, can access location data anytime and anywhere on their laptop device. This has made our entire system, employees and contractors operate more efficiently and help us complete projects faster at lower costs."

- Marshall Hibnes, Senior Electrical Engineering Specialist, Seattle City Light

TRANSFORMING HOW FIELD CREWS ACCESS DATA

Seattle City Light understood that it could transform field operations if it could provide open access to the distribution system data housed in its CAD database. Ideally, Seattle City Light wanted all personnel and field crews to be able to access and query data in the field, at any work site. The solution would need to work for personnel with no CAD expertise, specialized software or proprietary hardware. It would need to be available from any location, even offline when the user was unable to access any network. Seattle City Light evaluated available technologies and selected TerraGo's GeoPDF® to achieve this vision.

Seattle City Light utilized TerraGo Composer® to create a collaborative, dynamic and searchable GeoPDF map database and viewer that brought the data-rich maps from their CAD system to the end user laptop. The system allows all field crews and anyone else needing access to distribution information, to search a map through an address, coordinate, facility number or equipment number.

CREATING A SYSTEM FOR SEAMLESS OPERATIONS

As a result of having a simple, query-based system – response times have improved, allowing maintenance and construction activities to occur more seamlessly and necessary repairs to be completed much faster.

Headquarters, System Control Center and all field workers now have a common operating picture of all conductors, transformers, switches, vector data, overhead and underground facilities and other corresponding systems. What System Control Center staff can access, so can all field crews – even offline, from their laptops in the field.

Seattle City Light estimates that they have over 500 individuals using the system, with another 400 to sign on by year end 2014.

Additionally, with TerraGo's GeoPDF technology, Seattle City Light is prepared and amply equipped to respond in the case of a storm event or other natural disaster – with all field personnel able to access essential data, offline, in the field on their laptops. Having the information in the hands of the staff that need it during and emergency allows Seattle City Light to dispatch teams and equipment more efficiently and strategically, and provides improved safety for field workers.

BENEFITS

IMPROVED RESPONSE TIME

EASILY ACCESSIBLE COMMON OPERATING PICTURE

SEEMLESS WORKFLOWS

NO TRAINING OR SPECIALIZED SOFTWARE KNOWLEDGE NEEDED

ESSENTIAL DATA AVAILABLE IN THE FIELD FROM ANY LOCATION OR LAPTOP DEVICE

ABILITY TO ACCESS REQUIRED INFORMATION IN OFFILINE ENVIRONMENTS

ABOUT TERRAGO

TerraGo develops powerful location intelligence, geospatial collaboration and field data collection solutions that help the world's leading defense and intelligence departments, government agencies and commercial enterprises achieve mission success. TerraGo allows organizations to discover location intelligence, integrate geospatial intelligence and deliver situational awareness to the edge of operations and back.

Founded in 2005, TerraGo developed some of the industry's most widely adopted geospatial integration and collaboration solutions, based on its innovative GeoPDF® technology. Find the location intelligence solutions that matter to your mission at www.terragotech.com.

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