



Case Study

CTSPEC • INSPECTION

WHEN MASTERING VIDEO INSPECTION DATA IS SYNONYM OF PERFORMANCE

✦ SITUATION AND OBJECTIVES

In 2007, following the acquisition of a Geographic Information System (GIS), electricity giant Hydro-Québec decided to undertake a major initiative to supply this new system with information on its public utility assets. The goal was an ambitious one: gather and sort data on over 3,000 assets over a 24-month period. At a time when zoom camera inspection was still in its infancy, the challenge was enormous. SGS, backed by CTSpec®, was awarded the contract and began the inspection work on one of North America’s most extensive public utility systems. To accomplish this task, SGS chose PortaZoom® cameras in order to remotely inspect facilities, i.e., without physically entering them. The cameras were used in conjunction with CTSpec Hydrocom so that information gathering, video recording and report production could be carried out using a state-of-the-art software solution.

💡 SOLUTION

After a few weeks of calibrating, testing and custom-development to meet the specific needs of SGS and its client, teams were formed and the materials prepared. CTSpec Hydrocom was used to create digital inspection videos directly from the camera’s signal. The system offered a series of interfaces allowing operators to enter relevant information directly into the computers installed on-board the inspection firm’s vehicles. The information was then checked using the CTSpec Asset Viewer before being presented to the client as a report or database via DVD. Reports were customized and generated automatically by CTSpec Hydrocom, in line with the end-client’s requirements.

As the system made it possible to establish customized validation rules to ensure the integrity of data at the point of capture, quality control became simpler and more efficient than ever. The tool was

customized to capture new elements requested subsequently by the client (e.g., cable number and wattage, height of joints, inventory of cracks, water levels, pumping times). The simplicity of the software enabled operators with no prior computer experience to gain a good working knowledge of the system after only a day of training and a few days’ practice in the field.

✓ RESULTS

PRODUCTIVITY GAINS

After only a few days, the system began to prove its worth, yielding a substantial increase in productivity. Early in the training process, staff were able to inspect 4 structures a day. This quickly increased to an average of 15 structures a day (and as high as 24 vaults on some days) for the 24-month duration of the project.

DATA QUALITY

CTSpec provided a framework for the data capture process using validation rules thus making the quality of the resulting data much higher than expected. In the first weeks, SGS systematically checked each video and piece of data prior to delivery to the client. By the end of the project, only 10% of the inspection information was verified, on a spot-check basis. In the final analysis of over 3,000 structures inspected, only 0.03% instances of non-compliance were detected.

COMPETITIVE EDGE

Thanks to the flexibility of the CTSpec software, SGS was able to adapt its data collection and reporting operations in line with Hydro-Québec’s criteria, which evolved over time as they were gaining a better understanding of their network. This proved to be an undeniable advantage for SGS, allowing the firm to demonstrate its commitment and continue to deliver superior performance throughout the duration of the contract.