

RUGGED ENOUGH FOR INDUSTRIAL CLEANING

Company Background

HydroChem Industrial Services, Inc. ("HydroChem") is a leading provider of industrial cleaning services with offices throughout the United States. HydroChem provides specialized hydroblasting, chemical cleaning, ultra-high pressure cleaning, vacuum services and tank cleaning. HydroChem's customers include petrochemical, oil refining, electric utility and pulp and paper industries.

**The Challenge**

Historically, HydroChem's crew leaders (job foremen) have manually completed pre-printed service receipts on the customer's job site. These forms document equipment, labor and materials used in performing the work. After receiving customer signature approval, the service receipt serves as the source document for invoicing and payroll data entry.

Even though HydroChem's challenge is twofold, both obstacles are related. First, the task of completing an accurate service receipt on the job site is a challenge due to the complexities and variations in customer contracts, and different crew leaders performing work in different plants for various customers. Secondly, HydroChem is continuously looking for ways to improve the efficiencies of processing data, seeing benefits for both themselves and their customers. "By being able to generate a service receipt per the customer contract and then generate a matching invoice more efficiently, we can improve customer satisfaction tremendously," said Michael Flaherty, MIS Director.

HydroChem determined that a tool was needed to allow their crew leaders to generate a service receipt on the job site and then automate the process of getting the data into their billing and payroll systems. Based upon the challenges presented by the working environment and the vast amount of data collected, a conclusion was made that utilizing a PDA would not be effective. HydroChem recognized the need for a sturdier device, larger screen and broader features, so they turned their attention to a tablet solution. Since their customer base consisted of petrochemical companies, oil refineries, electric utilities and paper mills, the hardware platform HydroChem chose had to meet certain technical and environmental requirements. Ruggedization and durability were key factors, as well as the hazardous location rating.

August 2006

HydroChem also participated in the Tablet Adoption Program launched by Microsoft. This program was designed to assist companies in becoming Tablet PC “early adopters,” integrating the Tablet PC and rugged tablet technology into their corporate enterprise computing environments.



There was minimal competition in the hardware industry when evaluating rugged tablet PCs that were certified for a hazardous location. The iX104 has a UL-1604, Class 1 Division 2 rating for hazardous locations — this means the tablet will not emit a spark if used in a flammable environment where volatile gases may be present. The Xplore Tablet PC was able to survive tremendous physical punishment from the crew leaders, including drops and impacts. “The crew leaders appreciated the fact that the iX104 is a sealed unit, enabling it to withstand a variety of unfavorable elements including dust, rain, sleet and mud,” said Hartman. The rugged tablets have been deployed in a variety of HydroChem locations across the United States. The temperature specifications guarantee performance in the extreme environments from the Texas heat to the Minnesota cold. Another deciding factor for HydroChem’s choice was their need for a display screen that is legible in both low light conditions and bright sunlight. Lastly, the iX104 is impermeable to salt fog exposure, which is essential when servicing customers in coastal areas such as Corpus Christi, Texas.

The Benefits

Today, HydroChem’s service receipts are electronically stored on the Xplore tablets. While HydroChem crew leaders are on site, they collect the operational data for the service receipt on the iX104. When the job is complete, the crew leader prints out the service receipt for customer approval.

HydroChem developed an application using Microsoft’s .NET framework. “Because it was important for us to develop a user-friendly interface for the crew leaders, we developed the application with a software wizard in mind,” said Michael Flaherty. “The application walks the crew leader through a series of questions and screens that result in the generation of the service receipt. As a result, the accuracy and efficiency of the service receipts will increase and invoicing quality control will improve.”