Lab Management System

CLIENT

PLASTIC OMNIUM

INDUSTRY

Automotive/Manufacturing

BACKGROUND

Inergy is a division of Plastic-Omnium, a Tier 1 component supplier to major automotive OEMs across the globe. Inergy is a leading supplier of complete plastic fuel systems and emission reduction related fluids systems to car manufacturers.

CHALLENGE

Inergy Lab used 3 different legacy applications built in Access/Excel. They wanted to build a web based lab management system to bring efficiency and coherence to their processes using modern web technologies.

WHY TELERIK

Telerik provides a feature rich set of browser based HTML 5 controls that are easy to use. The controls work seamlessly in cross platform browsers. Kendo UI controls is an excellent toolset for creating responsive applications for mobile browsers.

CHALLENGES AND OBJECTIVES

Inergy Automotive is a Tier 1 supplier of plastic fuel systems and emission reduction related fluids systems for automotive manufacturers. Their various products go through multiple simulation tests in a lab for each OEM's system. Initially, Inergy used a set of legacy applications built using MS Access and Excel to manage each test and various parts and equipment used for the tests. These applications required the users to be in network and did not allow users to work remotely.

Inergy approached AI Software to build a web-based application that can be used remotely by all users. The application would have to be intuitive and user-friendly so the lab technicians and validation engineers could transition to the new app without extensive training.

This required Access databases to be migrated to SQL, and Excel based reports to be recreated in for the new environment.

THE SOLUTION

One of Inergy's goals of was to bring a new level of efficiency to their processes. They intended to replace their legacy systems that used obsolete development tools. The technology stack selected for new application had to be modern.

All modern web applications need to support mobile and desktop browsers with HTML 5 and CSS 3.
AI Software built a web application using Telerik's Kendo UI and ASP.Net MVC. MVC is a modern web application platform and Kendo UI provides a rich set of HTML5 and jQuery based controls. MVC provides the platform to create fast performing web applications. Kendo UI provides jQuery based browser controls to create a highly interactive business web applications.

The new application renders seamlessly on mobile and desktop browsers. This allows the technicians and engineers to carry a tablet in the labs – they use the app while carrying out different tests on the equipment.

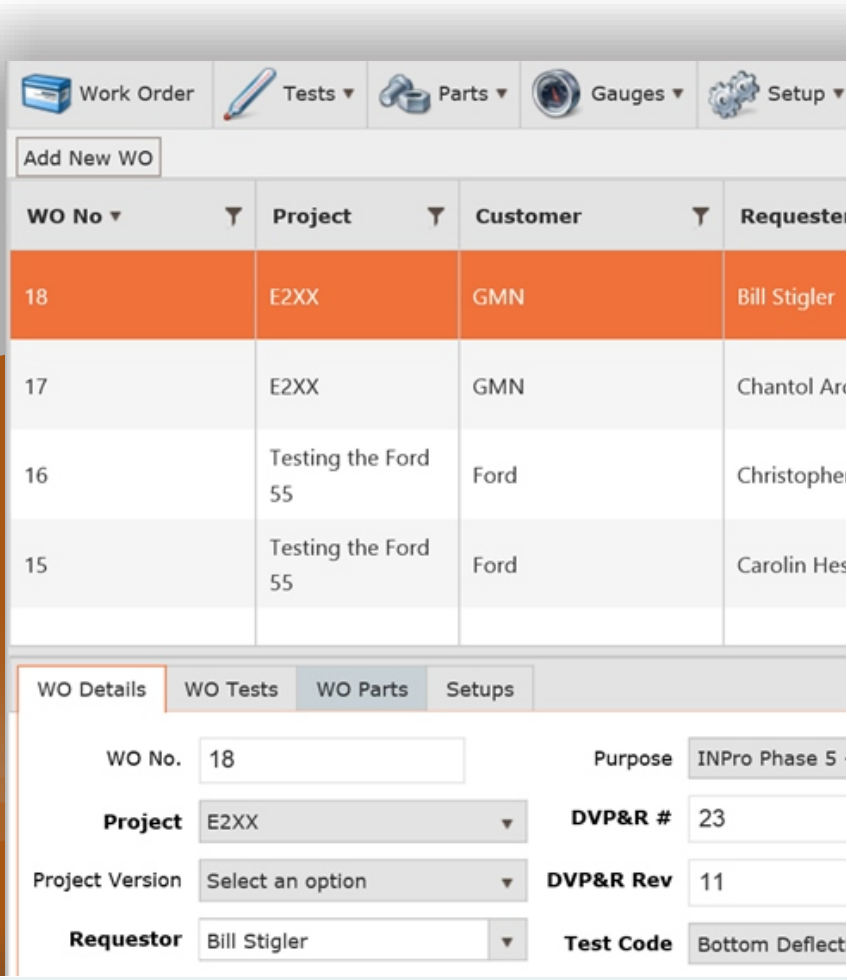
THE RESULTS

It is hard to imagine building a modern web application without using tools like Telerik's Kendo UI controls.

The web app has four modules: Work Orders, Tests, Parts, and Gages. Each module was initially divided into four different applications. There was also an Admin module that is used by Administrators only. The new app uses Kendo Grid and customizes its behavior where appropriate. Apart from Kendo Grid, we utilized a common set of controls including the Menu, Date Picker, and Window.

The application was developed within 6 months using a small team of three developers and one architect. This was the first project the team developed using Kendo UI. Even though the Kendo UI is relatively new toolset, the existing JavaScript libraries are extendable and the team leveraged jQuery/Kendo plugins to achieve the desired output.

The application now allows Inergy users to quickly search all the parts and equipment in the database as well as their location in the facility. Previously, the staff was responsible for maintaining records in three isolated systems. Now their data entry effort is greatly reduced as all the data is readily available.



TECHNICAL DETAILS

Please include information about the following, where applicable

- Operating System : **Windows Server 2008**
- Database Platform : **Microsoft SQL Server**
- Number of Developers : **4**
- Development Time : **6 Months**

RESULTS

Using Kendo UI, we successfully created a highly interactive grid control for the application. It would not have been possible to support multiple cross platform browsers without using a high quality library like Kendo. The intuitiveness of Telerik's product saved us a substantial amount of development time.