

**Customer**

A large public utilities organization.

**Challenges**

- The current assembly management process was a desktop application which had accessibility limitations and had to be converted into an Internet application for easy data access.
- The single-role management of the entire process was a burden. Thus, the admin tasks had to be shared, thereby converting this application to a multi-user, role-based application.
- Every year customers have to test their assemblies. There was no notification process to remind the customers about the test. An automated mail sending process was initiated as a solution.
- Customer/Assembly details were not updated periodically.
- Cross-department access was not available to track and handle the assemblies which are delinquent.
- No transparency in the tester's activities. A log of their activities had to be maintained.

**Project Description**

Cross Track is a desktop application in use by the client's Water Quality Division for printing forms, entering test data, and creating reports. The system is developed as a client server application and includes manual updates for PDF and database synchronization.

The intent of this project is to replace their legacy system with a state-of-art Web-based application that does not require any manual intervention, is easy to use, and costs less to maintain.

**Solutions provided by the product**

Using this tool, the client's Water Quality Division can monitor and manage backflow assemblies. Thus, the Department's management can monitor the condition of backflow prevention assemblies installed in the entire city. Erroneous assemblies can be escalated to the health department so that immediate action can be taken to prevent any health hazards due to contamination of public water.

**Features of this application**

- It is a role-based application, with each user having specified permissions, as directed by the client.
- It has the ability to generate a wide range of pre-defined reports.
- It has the ability to query any type of information and extract relevant data in multiple formats, such as the assembly list in Microsoft Excel format or the test report in PDF or MS Word format.
- It has the ability to perform advanced searching, sorting and grouping of all grid data.
- It has the ability to generate various reports to measure the status and statistics of the assembly.
- It generates all reports with trending graphs, such as pie charts, bar charts and stacked charts.
- It has a message broadcast feature to share messages between various users.
- It has posting schedule and calendar activities features that can be shared among various users.
- System automation is configurable by administrators.
- It enables batch generation of monthly customer notices, and these can be uploaded onto various FTP locations and accessed externally.
- It has a dynamic mail template editor with a Telerick text editor.
- It has data exporting and importing functionalities across various external databases in various formats such as XML, web service, etc.
- It has the ability to track the activity of a user with date and time stamps.
- Its database can maintain more than five years history of records.

**Technologies used**

ASP.Net 3.5, C#, MS SQL Server 2008 R2, MVC3 Razor, Telerick Controls, and jQuery.

**Benefits for the client**

- The tool provides cross-department access for the Department of Public Health (DPH) to view pertinent information.
- All inspection notices can be sent through regular mail (postal, with inspection copies) as well as e-mail.
- It provides clear visibility for management to track assemblies and site information.
- Automation of processes is inbuilt into the tool, which helps reduce the workload and time of human resources.