

Raytheon

Coating Team Data Collection

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Abstract

The main purpose of this project was to replace Raytheon's existing data collection system. The old data collection system wasn't automated and required a lot of maintenance attention. Our project is easier to use, and allows the coating team to manually enter required data at their own convenience, opposed to requiring data entry at run-time.

Architecture

Our project consists of a "Windows Service" that automatically collects data files from a specified location. These data files will get processed by 1 of 4 data parsers depending on the location of the file and/or the file type. Certain parameters are collected from the data and saved in a SQL database, where our web-app allows the user to view the data collected as well as enter any necessary manual data.

Impact(**mandatory*)

This project is built for very specific requirements given by Raytheon. After this project is delivered, it will be used by Raytheon exclusively. Maintenance on our project should be very minimal, and will be long lasting. We hope that it will make the coating team's data collection process much more efficient than it was before, allowing them to be more productive in the work place.

Results

The image shows two screenshots of a web application titled "Raytheon Data Collection and Storage System". The top screenshot shows the "Home" page with navigation tabs for "Home", "Data Entry", and "Reporting". It includes a welcome message and a copyright notice for Raytheon 2014. The bottom screenshot shows the "Data Entry" page for "Machine 1". It features a "Run Number" dropdown, "Operator", "Program", "Qty Parts", and "Surface Area" fields. There are also checkboxes for "Witness Coupons" and "Runs After Clean". Below these are two columns of input fields labeled "A" and "B" with a list of 1, 2, and 3 items. A "Comments" text area and an "Add Data" button are at the bottom. The copyright notice "© Raytheon 2014" is visible at the bottom of the page.

Summary

This project required knowledge in many different fields of development. The requirements were very specific in order to comply with the machines that are outputting the data, but we believe that we delivered exactly what Raytheon wanted: An easily maintainable project that will save time and money in the long run.