



Company:

Hexagon Manufacturing Intelligence

Hexagon Manufacturing Intelligence exists to help customers rapidly transform their manufacturing business by enabling them to work at the speed they need to, while inspiring complete confidence in the reliability of their processes and the quality of their output.

We supply software to manufacturing customers in automotive, aerospace, electronics, medical and others.

Challenges and Objectives

As our software (PC-DMIS) has grown over the years we have needed to manage and visualize the complex relationships between data models, classes and architectures internal to the PC-DMIS environment.

The PC-DMIS software division has been in business for about 30 years now.

What trends in your industry drove the need to use our product?

The customer demands more efficient software and quicker turn-around for solutions and enhancements to the software.

What were you looking for in a solution?

Low cost is always a priority. Also a tool that can give us near immediate analysis results plus the ability to look at the data in unique ways through custom CQLinq queries.

What made our solution stand out over others that you researched?

We tried several other solutions. One of these was far too expensive and limited by a complex configuration environment necessitating a full-time role to support. Other smaller, off-the-shelf products were flimsy and would return many false positives and/or failed to find many of the analysis points important to us.

What types of goals or tasks are you using the product to accomplish?

We have been using it for two primary functions:

One is to compile measurable progress reports that we can present to senior management and our development staff as well which shows quality trends for different projects and releases.

The other function is to drive refactoring priorities within the whole organization based on the output and frequency of design issues discovered by the CppDepend product.

What were the major pain points of your process prior to using our product?

It is often difficult to visualize relationships between classes and their data. It is also difficult to understand the scope and impact a particular change will have on the system. We used CppDepend to identify the relationships that could be improved as well as understand the scope of modularization. One additional use-case was that of modernizing the code base. CppDepend does a fantastic job and showing us where we can use more modern code patterns and solutions.

Has this solution saved money and/or increased productivity?

Absolutely. For us an essential tool in our development environment.

CppDepend Case Study

What feature of our product was most appealing?

The CQLinq query language, its ability to be customized and the wealth of metrics supplied in CppDepend sealed the deal. Also, the ability of CppDepend to instrument our source code without need for modification on our side was a big plus.

How do you and your team currently use the product?

Currently, each member of our architecture team has a copy of the software and uses it to discover design needs and drive priorities.

Can you share any metrics/KPIs that show the success you have enjoyed with our product?

We cannot provide these details but they are centered around the reduction of code complexity over time. With each development cycle we chart the progress and share with the organization. This helps us to know that we are moving in the right direction.

What have you been most impressed with?

CQLinq and the ease of application to our code base (other tools struggle on 3M lines of source code).

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