predictum®

Case Study: Semiconductor

Through the adoption of an analytical workflow the manufacturer of semiconductor equipment was able to expand the use of analytics leading to more reliable equipment designs.

Background: Sometimes getting engineers to follow procedure is like herding cats even when all recognize that the procedures are important to ensure consistency and product superiority. An Analytical Workflow resolves this situation.

The Problem

Major decisions are made in the process of designing products and processes. Many of them are difficult if not impossible to reverse so it's vital that the right choices are made to avoid warranty costs, customer dissatisfaction and other headaches following release to market.

Here engineers were inconsistency applying an important statistical analysis as part of the testing and development, if they applied it at all. Though they all understand the importance of using these methods, they were never sure they were doing it right. As a result, there was tension among various staff involved in design. This lead to time and energy lost in placing inspection on top of inspection in an attempt to ensure the right decisions were made. Would the product be sufficiently robust? Are the specifications appropriate? These questions, which must be answered, were a source of constant contention.

The Solution

Working in close consultation with the manufacturer, Predictum® developed custom analytical workflow that would take the manufacturer's engineers step by step through the procedure. The workflow features on-demand assistance that simultaneously educates them about the procedure while they work, the benefit being the engineer was learning about these methods simply by doing conducting the procedure. This form of automated education keeps them on the straight and narrow decision path only allowing acceptable options as they move through the procedure.

Implementing a custom analytical work flow equipment design decisions were statistically leading to a better design for their customers while reducing the risk of failures in the field that would require engineering change orders.

The Benefit

Sustained adoption of an analytical method was measured at a 100% participation rate. The analytical work flow facilitated an otherwise confusing procedure and produced a complete, error free report. The workflow ow provided all the required features of a good standard operating procedure: Complete, Correct, Consistent and Compliant. Cooperation among the various staff was enhanced with focussed placed on design challenges instead of arguing about the need for vital statistical methods.

The Problem

Lack of use of statistical methods lead to vulnerable designs

The Solution

A custom analytical work flow to evaluate equipment capability

The Benefit

Increased cooperation with focus on best practices in equipment design.

Learn how Predictum® analytical data solutions can make your operations more productive and reduce costs.
Contact us at **1.416.398.8900** or **info@predictum.com**

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