Leading Car Audio Maker Achieves Real-time Visibility into Product Cost Early in the Development Cycle

SITUATION

The product development team of the customer was accustomed to using spreadsheets for cost estimation and relied on multiple sources for collating the component and assembly costs.

IMPACT

The manual process was time consuming and error prone with a possibility of data loss during collection from various sources. The Customer had set up organization wide product cost optimization goals which were to be achieved by the product development team.

RESOLUTION

Our solution helped the Customer to systematically plan their product costs early in the development process with direct inflow of data from the PLM system. This real time visibility combined with granular analysis of historical trends ensured costing goals were met.

The Customer

A leading manufacturer of high-quality, high-fidelity audio and electronic products for automotive, consumer and professional use. It operates in three segments: Automotive, Consumer and Profession.
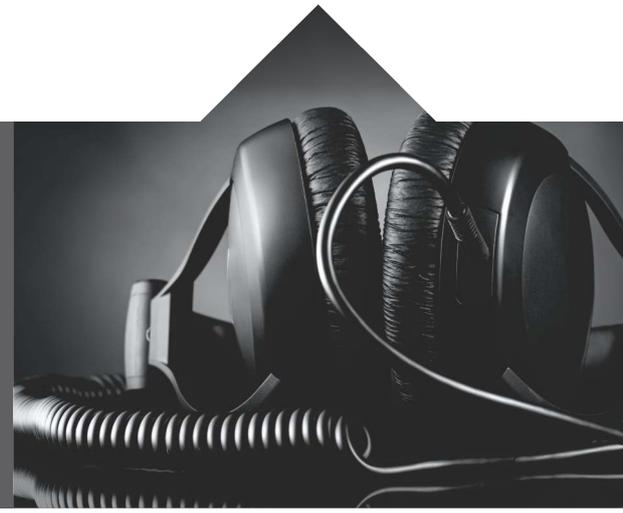
The Need

An important objective during new product development is to optimize manufacturing costs right from the initial stages of product development. The Customer's product development team consisting of Engineering, Procurement and Manufacturing estimated product costs using spreadsheets and collated the component and assembly costs from various sources. The manual process was not only time consuming but also error prone as data had to be aggregated from multiple cost sources and decision makers.

To meet and eventually exceed their cost optimization goals, the customer wanted to automate the entire costing process including the ability to generate and manage cost scenarios with trending and reporting capabilities.

The Solution

ITC Infotech implemented PTC's Windchill Product Analytics (WPA) Costing Module providing a systematic method and framework to generate cost models. Cost calculations and prioritization of cost estimates were automated using the Windchill Bill of Materials (BOM) structure and component/assembly cost estimates collated from multiple sources. The solution helped capture historical cost models and transmit the costing data into Windchill where the global product development team could access it in a secure, up-to-date manner.

Key features include:

• Cost data traceability and historical cost trend analysis

• Capability to manage cost breakup details for each part and at aggregate level

• Facilitate management of location specific cost data for supplier/company parts

• Allocation of specific location cost data as preference cost data

• BOM upload from file

• Integration with Windchill system to directly upload BOM

• Ability to synchronize & publish BOM/Part cost data into Windchill PDMLink

• Cost Data Management

Business Benefits

Our solution delivered a number of critical benefits for the customer:

• Real-time cost visibility with up-to-date cost reports ensure products are launched at, or under, target costs

• Improved product margins with better tracking and measurement of costs early in the development process

• Accurate estimates of cost roll-ups for different BOM configurations using various cost models

• Detailed breakdown analysis - provides comprehensive understanding of cost drivers and risks with cost breakdown analysis, Pareto analysis, what-if scenarios, and graphical displays of part and assembly cost status

• Empowers engineers to make smarter decisions by analyzing the impact of design and design alternatives on cost

ITC Infotech's PLM Practice

ITC Infotech shares a decade-long strategic partnership with PTC and is a leading provider of PTC Suite of Products. We have Centres of Excellence in specialized PLM technologies and are frontrunners in innovative methods, processes and skills in the PLM space. ITC Infotech has the largest number of PTC certified consultants and seasoned industry experts within depth knowledge of PLM.

The company has worked with some of the leading Aerospace & Defence, Automotive, Industrial Equipments, Hi-tech, Oil & Gas, Retail, Apparel and Footwear (RFA) and Consumer Goods companies across the world.

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