



## Challenges

## Solution

## Results

## Case Study Overview

Harman International, a worldwide leader in the manufacture of high-quality audio and electronic products has over the years developed a well documented and sophisticated process for development, but was in need of a system to streamline, elevate visibility, and ensure that the latest information and development were quickly accessible. They chose Intellect's Instant Application Platform (IAP) to help them achieve this goal.

## Harman Consumer Group

Harman Consumer Group Product Development and Engineering business unit of Harman International (NYSE: HAR)

Harman International is the worldwide leader in home-entertainment and professional hi-fi systems, with a collection of top-class brands such as Harman Kardon, Infinity, JBL and Mark Levinson. Harman is by many references also the dominant figure for the most important development in the auto industry in decades – automobile “infotainment” systems combining audio, video, navigation, telecom and Internet access.

## Challenges

### Harman International is the worldwide leader in home entertainment and professional hi-fi systems.

For the Harman Consumer Group, utilizing effective products are the lifeblood of their business. Innovation and applications of technology provide longevity and growth. The Product Development and Engineering resources along with the resultant Intellectual Property are their most valuable strategic assets. The efficient and optimum use of these assets is of the highest importance as Harman endeavors to keep its business operations as advanced as its 21st-century products. As the Harman Consumer Group grew into a position of rapid development and application of new ideas, they recognized an increasing reliance on a smaller number of internal experts. However, the dissemination of knowledge and best practices in their Engineering and Product Development was causing a slow progression in their group wide learning. This left the non-experts with an untapped potential and delayed advancement in their contributions. In other words they don't know enough, quickly enough, to make sound decisions, or to perform with the minimum amount of management. This was slowing down product development and jeopardizing the long-term competitive advantage of the group. In addition, although HCG had a well-documented and sophisticated process for product development, they lacked the necessary system to streamline, and elevate visibility to ensure that the right people followed the process correctly. In addition, the management of evolving critical documents was not organized in a way to allow quick access by all to the latest information. This created confusion, which reduced the speed and efficiency of development and of new product releases. In the highly competitive consumer electronics business, this is not a condition for success.

## Solution

Through a competitive selection process, HCG chose Intellect Instant Application Platform to design, create and deploy a custom Product Lifecycle Management (PLM) module over Frameworks and EDS's solutions. To leverage its world-class design expertise, Harman implemented the product development and engineering knowledge base system consisting of design and engineering processes and project management tools within the Harman Consumer Group business unit. Intellect Professional Services Team performed a Needs Assessment and Business Case Analysis in the first phase of the implementation.

These efforts identified the necessary configuration required to design and create the business application to meet the requirements of their highly detailed product development process.





## Harman Director

“The companies who own the industry brands, and who can create and control valuable IP are the only companies that will maintain advantage. How well we are able to development and manage our IP as well as our engineering processes, is crucial to us in exploiting our most important innovations”

– Harman Director

## Business Need

Develop new products rapidly, efficiently, and effectively.

## Solution

Use Intellect's Instant Application Platform to create a custom application to streamline operations and drive proprietary product development processes with a complete Work and Project Management System.

## Expected Results

Save approximately \$200,000 net, per year, for a forty-seat implementation.

One of the driving goals was to increase operating efficiency by creating a new web-based application that would completely model their development processes while supporting a worldwide product development organization. For HCG the Instant Application Platform's newly created PLM application simplifies, standardizes, speeds, and (most importantly) economizes design projects by:

- › Capturing and communicating critical design information as it is created
- › Record processes and knowledge as an easily accessible and reusable tool
- › Providing fast access to relevant and useful knowledge across current and future projects
- › Track development tasks, responsibilities and the information associated with these tasks

## Results

The Harman Consumer Group has been using the business application for several months during the first pilot phase, greatly improving engineering operations visibility.

This Project Data Management phase of the implementation ensures that all their engineering data, processes, tasks, documents and reports for a given project are managed, organized and streamlined to fit their engineering process. Harman's product development operations improved in this phase from the ability to make changes on the fly in their business application due to the Instant Application Platform's vast features and function which are easy to configuration and update.

The final phase of the implementation involves integrating their project data into a seamless workflow system, delivered in the Instant Application Platform, and ensuring the final preparations for full production are met. Intellect's Instant Application Platform is now Harman Consumer Group's competitive advantage for managing knowledge-based operations within the Engineering and Product Development realm.

