

First-of-its-kind briefcase hits market bug-free

Samsonite Europe tapped Siemens PLM Software to ensure the error-free rollout of its inaugural “intelligent” briefcase

Siemens PLM Software

www.siemens.com/plm



► Issues:

Design first briefcase to incorporate integrated wireless communication. Include extras that prevent contents from spilling

Coordinate with Portuguese moldmaker to develop new molding process for sturdy yet lightweight shell

Guarantee bug-free product

► Approach:

NX® modeling/visualization tools were used from concept through mold design

The case and molds were modeled simultaneously at the lockmaker, the moldmaker and Samsonite

All sites worked in NX software, eliminating translation errors and delays. Files were shared via Teamcenter® software

► Results:

Modifications happened across sites in minutes, allowing time for design optimization and resulting in exceptional quality in a new product

A last-minute feature was incorporated in only six weeks – a once impossible task

Mold problems were worked out through multiple design iterations for error-free production

SAMSONITE

- Packed with novel features and manufactured using new molding technology, the Hardlite had to hit shelves with bugs already worked out or risk alienating consumers.

New niche, new production process

Samsonite Europe had big plans for the Hardlite briefcase. The first to incorporate wireless communication technology, it would also be produced using a new, patented molding technology that combines different materials to yield the protection of a hard frame with the light weight of a foam shell. The case would incorporate popular Samsonite features such as Smart Stay, which keeps the case from opening more than 30 degrees when the shoulder strap is used, preventing contents from spilling. Between the novel features and the new manufacturing process, there was plenty of room for error. But that was out of the question because Samsonite was planning to make the Hardlite the first of many models using the new molding process.



Revamping the design process

Management realized that this project, involving the joint efforts of Samsonite engineers, a German lockmaker and a Portuguese moldmaker, would demand error-free communication and super-smooth collaboration. Just working out bugs related to the new molding process could require hundreds of design modifications, a process that formerly took weeks per change due to data translation delays and errors. To speed this process, Samsonite decided to engineer the entire product (case and molds) in NX, with suppliers using this software as well. Modeling took place simultaneously at all three sites. Teamcenter gave engineers immediate access to all product definition data. Samsonite used Teamcenter’s visualization technology (in standard JT file format) instead of paper drawings to convey design concepts to management and marketing personnel.

Solutions/Services

NX

Teamcenter

Client's primary business

Samsonite is the leading global supplier of luggage, from mass market to luxury products sold under the Samsonite, American Tourister and other brand names.
www.samsonite.com

Client location

Oudenaarde
Belgium

Why iterations went so quickly

Previously, when Samsonite engineers needed to modify a moldmaker's design, they struggled with an imported file or prepared a PowerPoint presentation showing the necessary changes. There was a lot of explanation and checking of others' work. With everyone using NX on the Hardlite project, Samsonite engineers could quickly modify suppliers' files themselves.

Successful rollout

The key benefit of the all-NX approach was a much faster process of design modification, one speedy enough to permit design optimization and a thorough digital de-bugging of the briefcase and its molds. Changes were made so easily that the bugs related to the new molding process were worked out completely in software, prior to making the actual molds. Also, a new on/off function for the Smart Stay feature was created and implemented in only six weeks, something that would have been unheard of in the past. Best of all, when the cases went into production, quality was just what Samsonite wanted for this breakthrough briefcase.

“A quality problem with the Hardlite would have jeopardized the success of future products built with the same molding process. By minimizing errors and permitting time for design optimization, Siemens' tools gave us the perfection required in a first-of-a-kind consumer product.

“Siemens took us from concept to tooling and gave us a very high-quality product at the end.”

Rik Hillaert
Manager
Development Engineering
Samsonite Europe NV

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