

SITUATION

Iomega's design team had to react fast to capitalize on market research findings which indicated PC users had a strong demand for affordable removable computer memory. Consumers wanted something new in an external hard disk drive: a low-cost drive with removable media for transporting large files, backing up and securing storage of information, and extending existing disk-drive capacity. The existing alternatives were unreliable floppy disks and cumbersome tape systems.

OBJECTIVE

Develop an innovative new product design that was compact, rugged, and portable. In terms of cost, the new product had to be in the \$200 range, which represented approximately a 75% price reduction.

PROCESS VISION

- ✓ Introduce new CAD/CAM/CAE technology to help facilitate a concurrent engineering approach to product development.
- ✓ Reduce cycle time by linking CAD/CAM/CAE with rapid prototyping technology.

ZIP DRIVES IOMEGA TOWARD A NEW PARADIGM IN DESIGN

"The Zip product shipped to market 11 months after the project began, which was a record in new product development time for Iomega. For a completely new product, this effort represented a 50% reduction in cycle time."

- Dave Jones
Manager, Zip Drive
Development
Iomega Corporation



- ✓ Engineer the product in a "paperless" environment.
- ✓ Engineer a product meeting consumer expectations (based on market research survey) and ensure the product met the performance and reliability characteristics Iomega's customers have come to expect.

ACTIONS

- ✓ Migrated from an incumbent 2D CAD system to SDRC's I-DEAS Master Series™ software.
- ✓ Because of Zip's fast development, changes were made at tremendous speed. When a redesign of the Zip from a top loader to a front loader was mandated, the team was able to make the changes in a number of days.
- ✓ Each of the Zip's 26 parts had an assigned engineer. However, because of I-DEAS Team Data Manager™ capabilities, which enables users to check files in and share data, Iomega's engineers were able to work on parts 24 hours a day, without having to worry about working on the wrong version of a part. This greatly accelerated the design cycle.
- ✓ Using I-DEAS™ software, Iomega's engineers were able to explode and combine assemblies and rotate parts in 3D space for a clearer understanding of form and fit with mating parts. This capability saved potential rework in down stream activities when molds were created.

RESULTS

- ✓ Using I-DEAS Master Series, Iomega was able to bring a totally new product to market 50% faster, and design a product exceeding consumer expectations.
- ✓ The Zip drive project proved to Iomega that an integrated design, drafting, and tooling operation was possible. Communication among team members was significantly enhanced because 3D solid models could be presented to manufacturing engineers up front in the design cycle. No 2D drawings were necessary. By eliminating the need for drawings, the team saved at least one month's time.
- ✓ Two weeks after its introduction, Zip became a leading revenue generator for Macwarehouse, a catalog distributor of Apple Macintosh computers, peripherals, and software.

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