

Single product definition – start to finish – slashes development costs

Palm, Inc. cut engineering expenditures in half by developing the Palm™ i705 handheld exclusively in Unigraphics NX

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PALM, INC.

- Like all Palm™ handhelds, the i705 was unique, requiring substantial engineering effort. The team faced the usual challenge: create a great product while minimizing development costs.

“We needed fewer engineers on the Palm i705 handheld because Unigraphics made individuals more productive, and eliminated data translation issues.”

Gregg Zehr
VP, Hardware Engineering
Palm, Inc.

The business issue

Design the first always-on, wireless handheld computer

Coordinate development with outside suppliers: industrial design firm, tooling vendor, and contract manufacturer

Hold down costs

The approach

Create and maintain all product data – from industrial design, to assembly and mold design, through manufacturing and engineering – in Unigraphics NX

How it worked

Engineering team for the Palm i705 handheld was half the usual size; engineering costs were down 50 percent compared to previous Palm projects

Single digital product definition enhanced compatibility with suppliers for faster availability of development units, evaluation units, and sample parts

TECHNOLOGY

Unigraphics® NX

PRIMARY BUSINESS

Palm, Inc. is the world leader in handheld computing.

LOCATIONMilpitas, California,
United States

“The Palm i705 handheld was so successful that other products are now being created with the Unigraphics NX Total Product Engineering approach.”

Gregg Zehr
VP, Hardware Engineering
Palm, Inc.

Each product one-of-a-kind

All Palm handhelds are unique, each requiring the engineering effort of a new product. The Palm i705 was no exception. It's Palm's first model to deliver always-on push email from up to eight email accounts; behind-the-firewall email for corporate users; web browsing via Google or URL entry; plus classic Palm handheld features such as Date Book and Address Book – all in a sleek silver one-piece package. As with other Palm handhelds, the i705 was developed in collaboration with an outside industrial design firm, and produced using the services of an outside tooling vendor and a contract manufacturer. The main challenge was controlling costs. That involved a two-part effort: boosting efficiency in-house and enhancing collaboration with suppliers.

New development strategy

Palm decided to take a new tack with the i705 handheld, adopting Unigraphics NX Total Product Engineering in which all product data – from industrial design to mechanical engineering and mold design, through manufacturing and engineering – is created and maintained in Unigraphics NX. Palm engineering created the 3D surfaces based on Lunar's industrial design sketches. They modeled internal parts and assemblies in Unigraphics NX and gave native Unigraphics NX files to the tooling vendor and manufacturer. To give marketing a head start in promoting the handheld, Palm engineers also used Unigraphics NX to create realistic images of the i705.

Highly successful method

The Palm i705 handheld was the company's first product developed entirely in Unigraphics NX. Compared to other projects, there were definite advantages. First, the ease of working in Unigraphics NX made individual engineers more productive – so much so that the engineering team for the i705 was half the usual size. This reduced engineering costs by 50 percent compared to previous Palm projects. Second, having a single digital product definition eliminated data incompatibilities that quickly ran up costs on earlier projects. Also, without the need for data translation between Palm and its suppliers, it took much less time to receive development units, evaluation units, and sample parts and assemblies.

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