

ACCELERATING SUCCESS THROUGH STRATEGIC INNOVATION

## Opportunity Genesis: Imaging Sensors – Copy This to Create Value!

**Client:** Fortune 500 manufacturer of diversified imaging equipment.

**Challenge:** Recent client R&D in the image reproduction space had led to the development of high quality image sensors and color balance technology. This technology enhanced the performance of its high-end reproduction products and services. However, the client was unable to recoup its initial technology investment because unit volumes of its core reproduction products were low. The client was looking to leverage the same sensor technology in a higher volume market segment.

**Diagnosis:** The customer had a strong set of core technologies, specifically the sensor and image enhancement technologies. Unfortunately, the company had little experience in end-user focused product development with which to leverage their technology investments.

**Methodology:** Understanding end-user product requirements was the first step in identifying potential market opportunities for the use of the client's technology. Leading vendors in the imaging processing peripherals, workstation and software markets were interviewed to identify fundamental trends in the existing market, and provide criteria for initial market filtration. Additionally, in-depth interviews were conducted with stakeholders throughout the graphic arts value chain (designers, service bureaus, printers, etc.) to map typical workflows and identify unmet needs.

The interviews with end-users from various segments were translated into individual user need statements, and subsequently sorted (KJ process). This sorting yielded a hierarchy of needs, to which product requirements would later be mapped (QFD process). These product requirements represented specific engineering metrics that future products would be designed to meet.

Once these metrics were developed, and agreed upon throughout the product development organization, alternative product configurations were examined. The concept generation exercise aimed to generate a large

number of potential product concepts that could incorporate the company's existing imaging technology. These concepts were then tested with representatives of the identified market segments.

**Results:** Analysis of user requirements within the graphic arts value chain revealed that graphic artists were heavily dependent on service bureaus for high quality color scanning of images. This dependence represented an extreme bottleneck for most artists, contributing to production delays and quality concerns as design and layout decisions were made based on quick, low quality desktop scans. Too often, their work was rejected on final review of production ready images.

This feedback revealed an opportunity to introduce a scanner that gave graphic artists more control over the production process. Based on its existing technology, the client was able to offer a desktop scanner that met the throughput requirements of graphic artists and generated production quality images. Looking across benefit dimensions, the value proposition became delivering proprietary image enhancement tools compatible with popular desktop publishing software packages, thereby providing additional differentiated value to designers. The net result was that designers could avoid dependence on service bureaus, show clients better intermediate results, and submit their work directly to printers for production.

Communicating the benefits of the new scanner, and the changes in workflow that it allowed, was a significant challenge. To maximize the effectiveness of

its position statements and advertising copy, the client drew heavily on language gleaned from the customer interviews.

This product owned 60% of the market for desktop graphic arts scanners within four months of the initial launch.

**Opportunity Genesis** analyzed technology, which had to date yielded low volume sales, performed a lead user analysis and

mapped end user needs throughout the graphic arts value chain. This led directly to the development of a next generation graphic arts scanner that captured 60% market share within four months of product introduction.

