



WINDOWS VISTA INDUSTRIAL DESIGN TOOLKIT

BMW Group DesignworksUSA collaborated with Microsoft Corp. to create the means for a holistic computing experience, connecting hardware to software.

Design Challenge:

BMW Group DesignworksUSA collaborated with Microsoft Corp. to create the means for a holistic and soulful computing experience, connecting hardware to software.

In 2005, Microsoft asked BMW Group Designworks USA to develop an "industrial design toolkit" for 250 OEM and ODM hardware manufacturers worldwide, providing PC designers with guidelines for creating hardware that visually connects with the Windows Vista software experience. The toolkit had to be flexible enough for hardware companies to maintain their own brand expressions, while achieving the desired holism with Windows Vista software.

To meet this challenge, BMW Group Designworks USA assembled a large multi-disciplinary team, with experts from Industrial Design, Engineering, Communication Design, 3D Modeling, Color and Material Design, and Design Strategy.

Design Solution:

BMW Group DesignworksUSA's design team began

with a comprehensive strategy phase evaluating the brand values of Microsoft, the future product values of Windows Vista, and an analysis of future trends in computing. The team also conducted competitive audits and trend scanning in product form languages, interaction models and colors and materials.

From the very beginning of the project, the design team was drawn to create an overall experience that focused on creating life in each product. At each phase of the design, the team's desire to give the entire computing experience a soul and presence was compounded. Out of the strategy phase, the team created the vision for a hardware "design language." The design language calls for an overall sense of harmony and balance, enhanced by visual depth, sophistication and energy. The core principles of the design language include harmony and balance through classic proportions, a sense of depth and sophistication with planar surfaces and layering, a sophisticated, energetic surface with pure geometry and sensual forms, a presence and intelligence through focus on points of interaction, and a quality, respect, and discipline in design details. The design language and core principles reinforced the vision that a product has its own soul.



“At the beginning of the project, the entire design team uncovered a hidden opportunity to create a design for the computing experience that gave the products a soul and presence,” said Holger Hampf, Director of Product Design at BMW Group DesignworksUSA. “In every aspect of the project we were passionate about focusing on the sensual aspects of the design.”

In developing these principles, the team explored form development using a “geo-senso spectrum” that mapped product interaction to surface language and form design. For example, hardware touch points such as key surfaces on a keyboard could be designed using sensual forms that embrace the human fingertip. The team followed classical design principles such as fibonacci numbers and the golden section for hardware proportion development. A palette of colors and materials were selected to support the holistic experience with Windows Vista software, and application volumes were recommended. Custom colors were developed with material suppliers and copyright protected as unique and owned by Microsoft.

To validate the toolkit’s hardware design language, the team designed five everyday objects including a wrist watch, office stapler, LED desk lamp, phone, and media player based on the core principles. This exercise was iterative. While the core principles drove the designs, the design process helped to further refine the principles. The hardware design language was applied to the physical design of the toolkit itself, a 16 inch by 9 inch box, milled out of clear acrylic glass, which included material samples, digital fonts and icons, and two hardbound books. The books communicated the emotional and tactical aspects of the project.

The hardware design toolkit succeeded in providing hardware OEMs and ODMs with valuable design guidelines for creating a holistic and soulful computing experience when utilizing Windows Vista operating software.

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