

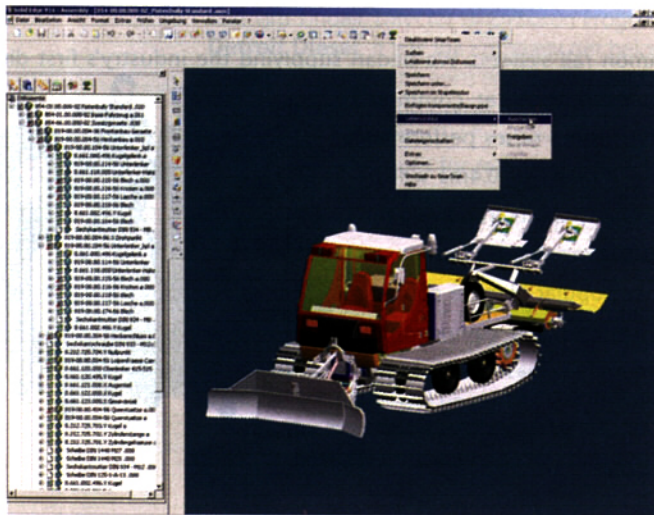
Designing for efficiency

Preparing ski slopes effectively and consistently demands the use of specialized machines. The southern German company **Kässbohrer Gelandefahrzeug** produces the prosaically named PistenBully snow groomer for the task. The company also produces beach cleaners and environment restoration vehicles.

Kässbohrer found that it needed to coordinate an increasing number of simultaneous design projects and opted to use SMARTEAM PLM (product life-cycle management) from **SmarTeam Europe**. The implementation was carried out by **PBU CAD-Systeme**. Although Kässbohrer is mainly using the PLM system as a PDM (product data management) solution, it envisages establishing a full PLM architecture supporting core processes at every stage, including customer and supplier portals.

"Our design process is fragmented and there is a tendency for designers to compete against one another," said Roland Weidmann, Kässbohrer's CAD System Manager and PLM Project Manager. "SMARTEAM ensures that they work together constructively and closely. It is also reducing time to market by meticulously organizing many of the design processes."

Weidmann and PBU representatives prepared a two-year implementation strategy that involved dismantling the company's old drawing archive, stored on Access, and replacing it with a Web-based system. Weidmann described the decision to convert entirely to 3-D in parallel with the start-up of a PDM system as "a huge challenge."



Kässbohrer is using a 3-D design system allied to product life-cycle management to make its design process more efficient.



Kässbohrer PistenBully in action on the slopes; it needs to work at full throttle in hostile environments at temperatures down to -40°C (-40°F).

Ultra-wide tracks are fitted to Kässbohrer's PistenBully. The company also manufactures beach cleaners and environment restoration vehicles.

According to SmarTeam, the new system prevents design engineers from continually copying and creating large numbers of new model versions. Designers are now able to check their documents into the new system only by using certain numbering conventions—and can see the pre-configured component structures "at a glance." The new top-down approach prevents a design from going off on a tangent, the company claims, and it also ensures that every project is broken down into structural components with cross-references to applications locating previous tried-and-tested versions, which can then be re-used.

Beginning with the base model and shape, every function is now detailed at all levels, the determining factors and interfaces for each structural component specified at an early stage. Weidmann said that designers could log on and simply ask the system where and how a certain part number had been built into vehicles. Product data can now be viewed at 50 workstations located in each of Kässbohrer's main departments. The Purchasing Department has four workstations from which DXF (Drawing Exchange Formats), drawings and standards can be sent to suppliers.

Kässbohrer envisages eventually establishing a central electronic document folder for every vehicle produced at its Laupheim plant near Ulm, Bavaria.

Stuart Birch