

New Mercedes-Benz World

Fast, Efficient Communication Management at the New Mercedes Museum in Stuttgart



The new Mercedes-Benz World, covering 53,000 m², and comprising the Mercedes-Benz Museum and the Mercedes-Benz Center, was built in Stuttgart-Untertürkheim with support from PKM.

The old Mercedes Benz Museum had reached its limits in terms of exhibition area – reason enough for Daimler Chrysler AG to conduct an architect's competition in 2002. The competition to design the new museum and a new urban planning concept was won by the Amsterdam-based UN studio van Berkel & Bos. The result is a new Mercedes-Benz World, including a 16,500 m² museum, a Mercedes-Benz Center and a passageway connecting the two.

The project called for tight scheduling and compliance with agreed quality standards, and made tough demands on the management of communication among all the parties involved. To provide the 1,000 project participants online with up-to-date information and to ensure fast data ex-

change throughout the project, the principal, DaimlerChrysler Immobilien GmbH (DCI), decided to deploy the PKM system. One architectural highlight is the double-helix structure of the museum. Although the building appears from the outside to have only three storeys, inside it actually has nine different levels that permit two different spiral routes through the exhibition.

Speed and structured communication are crucial

Friedrich Kittelberger, Project Manager at DaimlerChrysler Immobilien (DCI) GmbH, says that the top priority for DCI was on implementing the architecturally ambitious concept of the Amsterdam-based firm of architects, UN studio van Berkel & Bos, within the tight budget and schedule, in time for the 2006 World Cup, and in accordance with the agreed quality standards. *"In a tightly scheduled project of this kind, networking of participants is key"*, says engineer Volker Mack, Project Manager for the Museum at Drees & Sommer and the person responsible for the ten-strong project team at Drees & Sommer. *"Every component of the building has been individually designed and computed – tailor-made, so to speak. There were no standards. One can well imagine that more 7,000 drawings for the outer structure and reinforcements were produced during construction of the basic structure"*, adds Mack. To handle this volume of data, all

essential information was provided, archived and distributed using the Project Communication Management (PKM) system.



Multiproject-capable system for complex structures

The multiproject capability of the PKM software made it possible to depict a project within the system as a number of sub-projects with different structures. The entire project for Mercedes-Benz World was subdivided into five sub-projects in order to gain transparency and to support efficient management of the project. The virtual project space helped users to understand this complex project and enabled it to be clearly structured. Depending on access rights, all messages, schedules, deadlines, tasks and data files of the various people involved in the project are made instantly available on the user's desktop.

PKM networked around 1,000 project participants. Every contractor was contractually obligated to use PKM and to comply with document upload policies in order to enable efficient working.

This means that compliance with schedules can be managed and documented in a clear-sighted manner. As Uwe Kazmaier, a project partner of Drees & Sommer, says, *"To ensure good work on the project at all times, a virtual project space was created*

immediately after the architect's competition as a central data management platform for supporting the project until final delivery to the customer." Kazmaier sees the benefit of PKM in the enormous simplification of data exchange between those involved, and in the ability to provide data, in a matter of seconds, in a form that meets needs.

Successful planning and data management

During the planning phase, PKM played a key role in the exchange and controlling of plans, given that punctual submission of plans by the participant companies was absolutely essential. There were no time buffers. To this end, around 60 companies working on the project were integrated as users in the PKM system. Drees & Sommer monitored the separate planning stages for compliance with deadlines, and checked the plans for quality. Ralph Hoffmann, who works in the Quality Management and Assurance department at Drees & Sommer in Stuttgart, is convinced of one thing: *"We could never have managed the submission of plans so smoothly without PKM – such a huge amount of plans could never have been handled within such a timeframe."*

The virtual project space helped users to understand the complexity that results from the many separate aspects of this special project, and enabled clear structuring of the project. A reprographic service provider was brought in to print and deliver hardcopy plans, while order submission and processing were managed directly within PKM. Throughout the building process, PKM ensured continuous quality control.

Data flood securely under control

"In the last four years, more than 50,000 documents for the Mercedes-Benz Museum have been uploaded, including 18,000 plans", says Hans-Peter Sautter, who is responsible as IT consultant at Drees & Sommer Stuttgart for the data management side. The implementation schedule contained around 100 detailed workflows involving more than 4,000 separate actions, which Drees & Sommer monitored throughout the project, mostly coordinating them using PKM. Defects arising on site and quality deficiencies were detected via PKM and corrective action then taken. PKM was also used to handle amendments and supported the workflow between DCI, the construction managers and Drees & Sommer. Amendments were placed in the system and were subsequently approved or rejected after multilevel review by the construction managers.

Once the complex is completed, the PKM document management system ensures that all the project data are available to the building owner in structured, complete form for documentation and facility management purposes.

The PKM virtual project space alone is currently supporting more than 25,000 users in over 1000 projects involving a construction volume in excess of 80 billion Euros, in 38 different countries and 13 different language versions. Our customers include Accor, Airbus, BBI, BMW, BBVA, Drees & Sommer, Deutsche Bank, Dresdner Bank, ECB, Fichtner, Grupo Stadia, HochTief , Mercedes-Benz, Munich Re, Roche, Schott, Siemens and UBS.

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