

Borland®

Mercedes-Benz built-to-order trucks online, Borland and CAS Software AG make it possible

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—Helmut Melcher, Project Manager, CAS

Background: Computer-aided sales

“Which driver’s cabs and radios are available for a 24-ton rig?” In the past, such a question would have cost Mercedes-Benz dealers much lengthy leafing through big manuals. Today, the Mercedes-Benz Web site offers orientation in the multitude of equipment variations with the Mercedes-Benz customer advisory system (MBKS), developed by the Karlsruhe company CAS Software AG using Borland® Delphi.™ The Karlsruhe software company has been creating applications for computer-aided sales on behalf of the DaimlerChrysler brand, Mercedes-Benz, since 1986 and has become one of the biggest German providers of sales software. Throughout expansion, CAS has remained faithful to the development environments of Borland. Using a Delphi solution, the Karlsruhe team was able to make an early transition to the object-oriented programming of Windows® applications. This now very common model made the software development clearly faster and more flexible.

Challenge: flexibility thanks to component technology

For CAS, the online program, called Truck Online Configurator (TOC) project, required much more development time than simply underlaying the finished online systems for the automobile and transporter section with other data and image material. On the contrary, the TOC was given a completely new user guide that orients itself on the different demands of the Web site visitors in three ways: through technical features, trade solution or transport task.

Interested parties with strong specialist knowledge would be able to compile their own vehicle preference by entering the required technical details, like the type of drive, wheelbase, or engine performance needed. In the meantime, the layperson would select by trade solution (where he or she simply tells the TOC that a truck is required for the transportation of frozen foods, let’s say) and a list of suitable models is offered. These can then be admired in video sequences or as a 360° view. The third alternative would let the user find the desired commercial vehicle by entering the transport task by feeding the TOC with the necessary approximate power per kilometer per year or the distance profile that can be reckoned with. On every single page, numerous info buttons would be called up containing explanatory text and graphics.

CAS only had five months in which to realize this complex and extensive application—from the definition of the specialist requirements, to the technical specifications, right up to the development, test, and installation of the software.

Delphi™

case study
case study

The Borland solution: individual support for each customer

This tight deadline required a risk-driven project management, which meant that individual phases of the project would overlap. While a few developers, together with the project managers of Mercedes-Benz, were clarifying the technical requirements of the individual functions, other parts of the TOC were already being implemented. "You can only work in this fashion when you can rely 100% on your development tool. Like CAS relies on Delphi. We know from countless projects that the Borland solution is very reliable," emphasizes Project Manager Helmut Melcher. This made troubleshooting much more efficient: "There are points in every software project where a part of the program will not run. But we can always be sure of one thing: that Delphi has not caused the fault."

On account of the positive experiences with Delphi, it has been clear to CAS from the beginning that they would use a Borland solution on the TOC project. "The MBKS has already been based on Delphi. Numerous synergies will result from us using the same language concept for the TOC," explains Melcher, and he adds: "The Borland solution is virtually tailor-made for this project. With Delphi, we know for sure that the finished programs will run in an extremely fast and stable manner. These were the central, technical requirements of DaimlerChrysler for the TOC: The company wanted an application which boasts a maximum availability but with minimum response times."

"Thanks to component technology, we are capable of creating very fast, high-quality applications. Today, software development means that we continue to develop and fit together existing components. In doing so, Delphi has offered us excellent support for years now," emphasizes the project manager, Helmut Melcher, who is responsible for the TOC plans and adds: "The Borland development environment gives us a very reliable and fully developed solution with which we can combine individual components into complete applications. Administration functions and graphic surfaces make this process particularly comfortable and clear. Delphi has especially proven itself with large projects where many developers are working together. The powerful compiler is also of importance here. It translates the Object Pascal program into EXE files, i.e. into Windows programs which are suitable for running."

Technology

Application	Truck Online Configurator (TOC)
Tool	Borland® Delphi™
Database server	Oracle8i®
Operating system	Microsoft® Windows® 2000 running Intel® Pentium® III
Development team size	11

The new online program has ensured that selecting the correct commercial vehicle has become a multimedia experience: From their own PC, within minutes, interested parties can compile a truck that corresponds precisely with their individual requirements. Mercedes-Benz and CAS have developed a flexible module system that offers buyers an optimum selection of variants. The manufacturer has divided its commercial vehicles into components which can be combined with each other in a variety of different ways: engines, attached trailers, brake systems, gearboxes or driver's cabs. This way, Mercedes-Benz profits from the cost advantages of a series production of individual components and, at the same, offers its customers the advantages of tailor-made vehicles.

Results: bring on the future

CAS knows from other projects that further advantages of Delphi will show up in the maintenance cycle of the TOC, since no useful application is finished upon its implementation, and in new requirements from future needs. Professional software like Delphi is able to change with the demands of today's development environments. Sometimes new functions have to be integrated; sometimes an application has to be converted to a new operating system.

"Delphi is a synonym for investment security at CAS, as Borland products are generally clearly way ahead on the market", stresses CAS director Ludwig Neer. When in 1997, or thereabouts, the development of online applications began for Mercedes-Benz, CAS used the tried and tested development environment of Delphi, which already offered all the necessary functions for a reliable and professional Web development. "Delphi has grown and expanded over the years: with the technologies, with the demands of CAS, with the desires of our customers. Therefore, we can be sure that we will be able to continue to develop the TOC in the future using the current Delphi versions—irrespective of how demands may change," summarizes Neer.

It is hardly any wonder then that the Karlsruhe developer is presently using the Borland solution for the first expansion of the TOC to create interfaces between the online configurator and the MBKS sales system. With a click of the mouse, visitors to the Mercedes-Benz Web site will soon be able to send their configurations to a Mercedes-Benz office in their locality. That means in subsequent personal sales talks, all the data is already available in order to complete the selection of the suitable truck in a targeted manner. The dealer carries out the fine configurations on his PC or laptop and performs the detailed profitability analyses for the desired truck. And the absolute main attraction—possible delivery times will soon be available using MBKS.

Gottlieb Daimler ranks as a visionary who turned his idea into reality with exemplary determination but also with exemplary success: a mobile world on land, in the water and in the air. The TOC continues this innovative line based on the reliability, stability, and performance of the Delphi development environment.



Borland®

100 Enterprise Way
Scotts Valley, California 95066-3249
www.borland.com | 831-431-1000

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