Customer Case Study

Fendt Tractors: NATURAL applications use the tcACCESS SQL-interface to access DB2-tables on SAP R/3

OUTSTANDING IN THEIR FIELD

The Allgäuin Bavaria is well known for its scenic and cultural beauty. Fendt Tractors, located in Marktoberdorf, in the heart of the Allgäu, is the high-tech brand of AGCO Corporation and one of the world's largest manufacturers, designers and distributors of agricultural equipment. Based on their pioneering achievements in agricultural equipment technologies, Fendt has enjoyed an extraordinary reputation over the last 70 years, and their growing market share in Europe is a testament to their success.

BUSINESS BACKGROUND

Fendt's manufacturing competence manifests itself in three areas: customer oriented production; mastery of advanced and forward-looking technology; and prize-winning quality management. Industry experts refer to Fendt's manufacturing plant as 'the state-of-the-art location' in the tractor industry. At Fendt's Marktoberdorf production facility, 1,650 employees work to develop, produce and distribute tractors of all shapes and sizes, from 50 to 270 horsepower. At the core of the production facility is the transmission manufacturing and final assembly. The plant facility is also home to the Data Processing department where IBM mainframes running the z/OS operating system are in use. The production data is stored in ADABAS and DB2 databases.

SYSTEM PROFILE

One of the core applications is an in-house developed "Production Planning and Control System" (PPCS). This system has been developed over the years to meet the multiple requirements of a state-of-the-art production facility. The main development language for the PPCS is NATURAL. The data store is based on ADABAS files. Counterpart to the PPCS is SAP R/3. The SAP R/3 Application Server runs on Windows. The Database Server is a z/OS LPAR with DB2. tcACCESS provides the transparent link between these two environments.

Anton Seelos, project manager of Fendt's technical migration team (SAPR2 R3), describes the reasons for using tcACCESS, "In 1999 we purchased tcACCESS to enable our end users to create reports and statistics out of our ADABAS files using Microsoft Excel and Access. At the time we were still running SAP R/2 in addition to our own PPCS system. SAP R/2 was based on ADABAS as well, and both systems were tightly integrated. NATURAL programs of the PPCS system were accessing SAP R/2 files and SAP ABAPs accessed the ADABAS files of the PPCS system. We had developed our own interfaces to achieve a full integration of all our business processes.

BUSINESS ISSUE

Not long after, Fendt made a decision to migrate the SAP R/2 platform to SAP R/3 using DB2 the mainframe. However, the main and most important question remained, "How to connect these two worlds in a similar fashion to that which we already had and were accustomed to?'" While different possibilities and several alternatives were researched, none of them met Fendt's criteria and requirements. Mr. Seelos recalls, "At that point in time, we started to think about using tcACCESS as a possible solution, so we got in touch with B.O.S. and developed a concept.

TECHNOLOGY SOLUTION

"The first goal was to enable SQL access from our NATURAL online and batch programs to the DB2 LPAR. This was implemented in a short period of time. The fact that DB2 was running in an LPAR of its own and APPC had to be used for communication was not a

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problem. However, we were not happy with the performance in the beginning. The vendor's representative spent a day's time, evaluated the situation and made the necessary adaptations to our VTAM definitions. After that, the system was running smoothly and to our expectations."

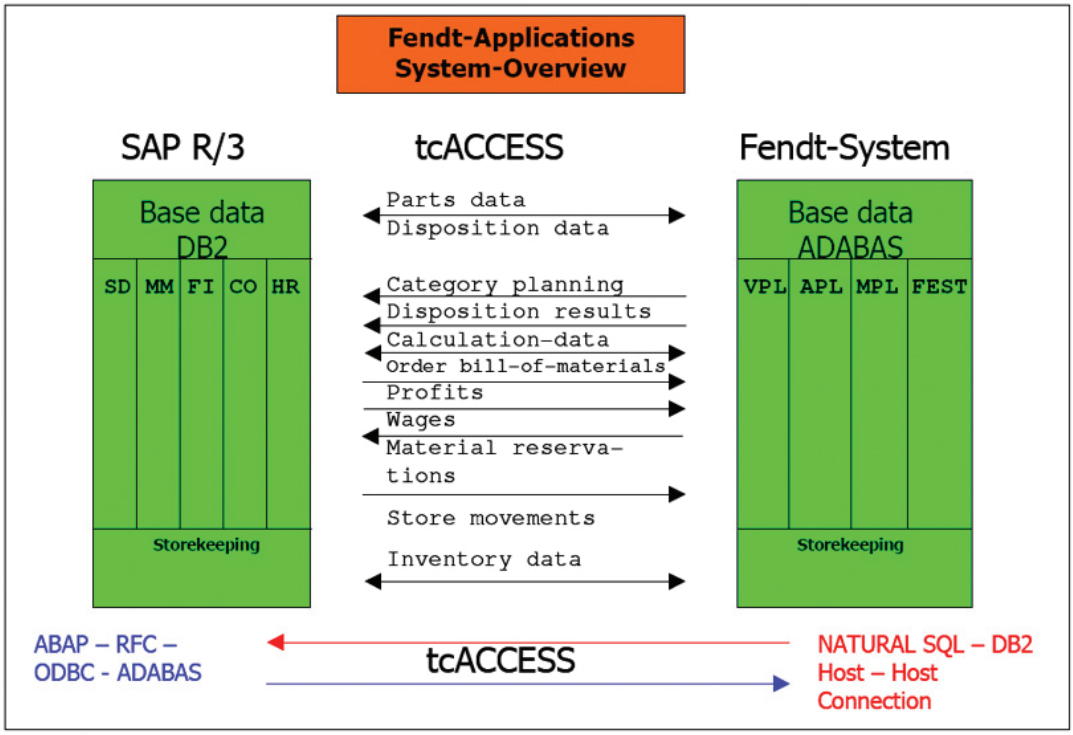
The preliminary concept for accessing the ADABAS files from SAP R/3 programs was based on the R/3 BAPI interface. This was found to have negative performance implications. Mr. Seelos says: "For us, the optimum solution was to use the RFC protocol. We used Visual Basic to develop an RFC Server. This server receives RFC requests from SAP R/3 ABAPs and translates them into plain SQL. We use the tcACCESS ODBC Server to pass these SQL requests to the tcACCESS mainframe component. tcACCESS accesses the ADABAS files and returns the data back to SAP R/3 following the same path."

Using tcACCESS to integrate the two applications has become even more advanced. All files related to storekeeping had to be mirrored, because Fendt could not give up the in-house solution. The real-time synchronization of the ADABAS files and their DB2 counterparts has become the major task of tcACCESS.

Mr. Seelos summarizes: "Approximately 900 end-users work with both systems. Data access is completely transparent to the user of our PPCS system as well as to the SAP R/3 user. We are extremely happy with the implementation. The excellent working relationship with the vendor, short support channels, the competence of the staff and their fast reactions to our inquiries and recommendations bas built a very trusting relationship. For us, tcACCESS has become a strategic product."

The NATURAL applications of the PPCS system use the tcACCESS SQL interface to directly access the DB2 tables of the SAP R/3 database. Each application runs in a different z/OS LPARs.

SAP R/3 ABAPs send RFC requests to the RFC Server installed on the SAP R/3 Application Server. Fendt developed the RFC Server in Visual Basic. The server takes the RFC requests, translates them into SQL syntax and passes them to the tcACCESS ODBC Server. The requests are forwarded to the tcACCESS mainframe component, which accesses the ADABAS files based upon the SQL statements. Result sets or return codes are passed to SAP R/3 following the same communication path.



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