

Software Development and Legacy Modernisation Profile

Frank Hentzschel | Senior Software and Database Developer

Takeover, maintenance, enhancement and modernisation of long-established business applications. Experience with C#/.NET, Delphi, Visual Basic and VBA, database connectivity and interfaces, plus extensive earlier C/C++ projects. Focus on understandable code, stable processes and user-friendly solutions.

Core skills Legacy modernisation · Refactoring · C#/.NET · Delphi · Access/VBA · SQL · Interfaces · Performance tuning

Additional technologies SQL Server · Oracle · PostgreSQL · REST/SOAP · WinForms/WPF (project-specific) · Git · C/C++ (earlier projects)

Working arrangements Primarily remote; on-site meetings by agreement across Germany, Austria and Switzerland.

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Selected Project Results

- Vehicle development (Mercedes environment): Independently took over and supported a long-established Access/VBA test logging application until replacement, fixing bugs, implementing change requests and optimising Oracle access and Excel exports.
- Retail: Took over and continuously enhanced existing Access applications for a mobile-phone retailer, including bug fixes, new functionality and process automation through to the ongoing integration of e-invoicing.
- Industry association: Modernised an existing Access/VBA invoicing application, improved document generation and workflows, and began extending it to support electronic invoices.
- Bank in Bavaria: Took over an Access/VBA application for cash and valuables logistics following a developer change and reduced invoice generation from over six hours to under one hour (more than 83%).
- Swiss Re: Took over an existing Excel/VBA solution linked to host systems and DB2, becoming productive after one week rather than a four-week induction; engagement extended from three months to approximately eighteen months.

Specialist Skills

Existing Applications Reverse engineering, code analysis, bug fixing, enhancement, refactoring and long-term support for production software.

Software Development Project-based development with C#/.NET, Delphi, Visual Basic and Access/VBA; extensive earlier C/C++ and MFC development.

Interfaces and Databases SQL Server, Oracle, PostgreSQL, ODBC/ADO/DAO, APIs and web services (REST/SOAP), data import and export.

Maintainability and Quality Technical design, code structure, unit and automated tests, regular TDD, Git and proportionate documentation.

Collaboration Requirements analysis, change requests, user support, training and occasional technical leadership and coaching.

Selected Project References

Retail – Development and Support of Custom Access Applications

since 09/2023

Development, support and continuous enhancement of custom Access applications for a mobile-phone retailer with two branches and seven employees. Analysis of existing applications, implementation of new requirements, VBA programming, bug fixing and automation of operational processes. Integration of Outlook features and development of an SMS reminder function; support for ongoing production operations.

Result / Status: Ongoing enhancement to integrate electronic invoicing into an existing application.

Technologies: Microsoft Access, VBA, SQL, Outlook, Office automation, E-invoicing

Industry Association – Modernisation of an Access Invoicing Application

since 05/2023

Maintenance and enhancement of an existing Access/VBA application for the administration and invoicing of an industry association. Adaptation of invoicing processes and document generation, automation of recurring tasks, and integration of Word and PDF documents.

Result / Status: Ongoing development to add ZUGFeRD electronic invoicing without replacing the existing application in its entirety.

Technologies: Microsoft Access, VBA, Microsoft Word, PDF, ZUGFeRD

Zurich – Call Centre and CRM Applications

since 06/2021

Adaptation and occasional support of a Delphi application showing breaks and availability of call-centre staff. Development of two Access/VBA CRM applications with MySQL backends for importing customer lists, recording contact attempts, outcomes and insurance products, and generating management reports.

Result / Status: One CRM application and the Delphi solution continue to receive maintenance as required.

Technologies: Delphi, Access, VBA, MySQL, Excel

Finance Company – Backend and Database Development

06/2025–01/2026

Development and adaptation of C#/.NET API interfaces and SQL Server stored procedures for an existing database structure. Optimisation of data access through suitable indexes and revised procedures. Also developed an Excel/VBA KPI dashboard prototype.

Technologies: C#/.NET, SQL Server, T-SQL, Stored Procedures, Excel, VBA

Vehicle Development – Support of a Long-Established Test Logging Application

11/2022–11/2024

Took over and independently maintained a long-established Access/VBA application for logging and analysing vehicle and component tests. Reverse engineering, bug fixing, change requests and support of production operations until replacement by a cloud solution. Also maintained C#/.NET reporting components.

Result / Status: Accelerated slow Oracle data access in Access forms and optimised Excel exports.

Technologies: Access, VBA, Oracle, ODBC, SQL Server, T-SQL, PL/SQL, C#/.NET

Bank in Bavaria – Cash and Valuables Logistics and Performance Tuning

06/2021–10/2022

Took over the support and enhancement of an existing Access/VBA database application for cash and valuables logistics following the departure of the previous developer. Analysis, bug fixing, change requests and optimisation of business processes. Replaced Microsoft Word-based invoice generation with native Access reports. Also certified and digitally signed Access and Excel/VBA macros for production use. Part-time remote engagement through a recruitment intermediary.

Result / Status: Reduced invoice generation time from approximately six hours or longer to under one hour (more than 83%).

Technologies: Microsoft Access, VBA, Microsoft Word, Microsoft Excel, SQL, SQL Server, Access Reports, Terminal Server

Software Company in Rosenheim – CRM and Dynamics Integration

03/2019–12/2021

Enhanced commercial applications using Delphi and PostgreSQL, particularly in the CRM area. Imported Dynamics 365 data via a web interface into the application and PostgreSQL database; developed plugins/extensions using C# and JavaScript, along with unit tests. Used Docker containers.

Technologies: Delphi, PostgreSQL, Dynamics 365, C#, JavaScript, Docker, Unit tests

Siemens – Software Development for Power Plants and Logistics

08/2018–02/2019

Enhanced existing software for power-plant systems and logistics, primarily using C#/.NET, database connectivity and SQL queries.

Technologies: C#/.NET, SQL, Oracle

LDBV – Migration of an Access Application to SQL Server

02/2016–07/2016

Migrated data and tables from an existing Access application to SQL Server largely independently and adapted VBA code and queries. Retained efficient Access queries while moving time-critical processing to SQL Server queries and stored procedures.

Result / Status: Migration completed and the converted application subsequently put into production.

Technologies: Access, VBA, SQL Server, T-SQL, Stored Procedures

Swiss Re – Financial Mathematics and Host Integration

01/2006–06/2007

Took over and enhanced an Excel/VBA application for risk calculations. Integrated host data, developed COBOL code for DB2 access and created a prototype Java file service (proof of concept).

Result / Status: Productive after one week instead of the planned four-week induction; original three-month engagement extended to approximately eighteen months.

Technologies: Excel, VBA, COBOL, DB2, Java, Host integration

DATEV – Modernisation of Host Interfaces

09/2005–12/2005

Independently implemented new C++ interfaces between host systems and Windows applications using a proxy/stub architecture and transport model.

Technologies: C++, COBOL interfaces, Visual Studio, SourceSafe

Rail Infrastructure – Software Redesign and Code Merging

11/2001–03/2003

Redesigned and optimised software components, merged different code versions, and developed, adapted and tested supporting tools, mainly using VBA, Delphi and Kylix.

Technologies: VBA, Delphi, Kylix, Windows, Linux, CVS, SourceSafe

Diakonisches Werk Bayern – Business Applications

10/1996–12/1998

Developed several production applications, including central address and membership-fee administration, residential care management, service billing, statistics, financial accounting and banking interfaces, and OLAP reporting. Within a team of three to four developers, quickly assumed a technical lead role and responsibility for subprojects. Standardised code, improved maintainability, and introduced a consistent, user-friendly interface design.

Result / Status: Applications deployed to production, with substantial qualitative improvements in maintainability and usability.

Technologies: Visual C++, MFC, Visual Basic, Access, VBA, SQL Server, ODBC, COM/OLE, Crystal Reports, TM1

Software Company in Traunstein – ZEISY and ZUBE

04/1992–12/1995

Played a leading role in the development of new time-recording and access-control systems. Led subprojects covering master data, operational organisation, planning and invoicing; database design, application design, prototyping and technical guidance for three employees. Terminal integration for magnetic and chip cards, technical documentation and user training.

Result / Status: Introduced at a pilot customer and subsequently put into production at additional customers.

Technologies: Visual C++, MFC, ISAM, ODBC, Access 2.0, Windows

Additional Experience

Earlier Development Visual C++, MFC, C, Kylix, COBOL, DB2, BS2000, host integration and hardware-related interfaces from earlier projects.

Additional Technologies Some use of Entity Framework, WinForms, WPF and DevExpress; basic Docker knowledge; Java and JavaScript from earlier projects.

Education and Languages DV-Kaufmann vocational qualification (IHK). German: native; English: good working proficiency.

Professional Development Regular attendance at developer conferences and practical workshops.