



PERSONENDATEN **Thomas Kruse**



Availability / Area	01/06/2025 / Rhine Main Area
Year Of Birth	1967
IT Experience since	1990
Education	Diploma in Computer Science & Economics 1995 (University of Mannheim) Tutor in Corporate Policy (Organization, Human Resources, Management, Planning)
Languages	German (native), English (many years of work in English-speaking teams)
Current Focus	Business analysis and requirements management, design of business models and workflows Architecture, design and implementation of middleware architectures Backend development Front-end development
Business	Tourism industry, financial services
Date	November 09 th , 2023

KNOWLEDGE

	Business analysis and requirements management, design of business models and workflows Architecture, design and implementation of middleware architectures on Java EE, .Net and C++ base, design and implementation under Java (experience since 2001), C# (experience since 2005) and C++ (experience since 1991) Front-end development based on Angular/Typescript (experience since 2017)
Methods	Scrum, SAFE, OOA/OOD, UML
Tools	IntelliJ Idea, Eclipse, RAD, JBuilder, Visual Studio Code, Visual Studio, Git/Stash, CVS, Mercurial, Visual Source Safe, MKS, PVCS
Standard Software	Jira, Confluence, Trello, Microsoft Office, Open Office, XML Spy
Databases	Oracle, DB/2, MySql, MariaDB, MS SQL-Server, SQLite, Informix
Web- Application Server	Angular x, SpringBoot, Weblogic, IIS, JBoss, Tomcat, Websphere, Websphere Liberty, Apache, nginx
Programming Languages	Java, C#, C++, Typescript, Javascript, php, Python, HTML, XML, XSLT, CSS, SCSS, XAML
Operating Systems	Windows, Unix (Linux, Reliant Unix, Sun OS)
Unique Skills	Many years of experience in the design and implementation of software projects Extensive experience in structuring and analysis of business requirements Design and implementation of software architectures (two-tier, 3 tier) based on JEE Business management training

SOFT-SKILLS

Good social skills and good teamwork
High analytical skills and very rapid incorporation into complex topics
Strong ability to work independently
Strong goal-orientation, self-management and discipline
Effective communication skills
High degree of responsibility and initiative, healthy pragmatism



04/23 – 12/23 CAMADA – Case Management Database

Branche	Finance
Thematik	<p>Continue development of an application to collect, manage and provide analysis support for Suspicious Transactions and Orders Reports (STORS). This should enable the implementation of effective regulations, systems and procedures to detect potential or actual market abuse.</p> <p>All incoming suspicious transaction reports and their attachments are filed by the system. The responsible units analyze the received tip and, in a further step, support or pursue an initiated investigation. The necessary technical processes are to be mapped in the completely new application. Customized reports facilitate the evaluation of the tips, analyses and investigations by creating special key figures and aggregations.</p> <p>The implementation was carried out using Websphere Liberty 21.x as a micro service. The frontend was based on Primefaces (JSF). The frontend and backend were both designed as micro-services and communicated with each other via a generated (Swagger) REST API.</p>
Aufgabe	Project owner of the project: Analysis and elaboration of the business requirements in close cooperation with the responsible departments, creation of specification, design of the complete user interface and all workflows, creation of the required implementation tickets and quality assurance of the implementation.
Technik	Windows, Windows 10, Linux, Websphere, Websphere 9.5, Websphere Liberty, Websphere Liberty 21.x, DB/2, HTML, SCSS, XML, UML, Java, Java 8, Javascript, IntelliJ Idea, Maven, Swagger, Git/Stash, PrimeFaces, PrimeFaces 12, Jira, Confluence, Microsoft Office, Scrum
Projektgröße	ca. 8 MA, project language German, documentation German
Webseite	https://kruse-it.de/canvasReferencesCamada.htm

03/23 – 11/23 IDISmig – Technische Migration auf Liberty

Branche	Finance
Thematik	<p>Migration of an application from Websphere 9.5 to Websphere Liberty 21 because Websphere was discontinued by IBM.</p> <p>The dependent libraries were also updated (Java, Primefaces, ...) and brought up to date.</p> <p>The migration was done on Websphere Liberty 21.x as a micro service. The frontend was based on Primefaces (JSF), which was also updated from version 8 to version 12.</p>
Aufgabe	The migration was done on Websphere Liberty 21.x as a micro service. The frontend was based on Primefaces (JSF), which was also updated from version 8 to version 12.
Technik	Windows, Windows 10, Linux, Websphere, Websphere 9.5, Websphere Liberty, Websphere Liberty 21.x, DB/2, HTML, SCSS, XML, UML, Java, Java 12, IntelliJ Idea, Maven, Swagger, Git/Stash, PrimeFaces, PrimeFaces 12, Jira, Confluence
Projektgröße	ca. 8 MA, project language German, documentation German
Webseite	https://kruse-it.de/canvasReferencesIDISmig.htm



11/22 –

BEKO – Authorization concept for financial applications

Business

Finance

Abstract

Creation of a general authorization concept for the applications of the department. The goal was to eliminate the assignment of personal rights within the applications and to outsource these assignments to the AD of the authority.

To this end, the existing "IDIS" application was analyzed, adequate workflows were defined for the use cases, and all application points within the application were converted to the new concept.

The authorization concept had to be revised, particularly for the case of personnel changes and the withdrawal and granting of (collective) authorizations. In addition, the department could no longer change authorizations for companies if a person was no longer assigned to the unit in question. With the new authorization concept, all authorizations are to be issued at a central location.

Task

Project owner of the project: Analysis and processing of the technical requirements in close cooperation with the responsible departments, creation of specifications and the required implementation tickets and quality assurance of the implementation.

Tools

Windows, Windows 10, Linux, Websphere, Websphere 9.5, Websphere Liberty, Websphere Liberty 21.x, RAD, Eclipse, DB/2, HTML, CSS, XML, UML, Java, Java 8, JEE, RAD, Maven, Swagger, Git/Stash, PrimeFaces, PrimeFaces 8, Scrum, Jira, Confluence, Microsoft Office

Project Size

ca. 7 MA, project language German, documentation German

Web

<https://kruse-it.de/canvasReferencesBEKO.htm>

04/22 – 10/22

CBDIF – Cross Border Distribution of Funds

Business

Finance

Abstract

Enhancement of an application for the capture, management and analysis support of notifications on the start, discontinuation and modification of funds that fall under the CBDIF definition. For this purpose, the existing application "IDIS" was extended by the corresponding workflows, capture dialogs, reports and backend services.

The Cross Border Distribution of Funds Regulation (CBDIF Regulation (EU) 2019/1156, entered into force on 01.08.2019) specifies that national supervisory authorities must report information and documentation on the cross-border distribution of investment assets/funds to ESMA in a distribution register.

The implementation was based on JEE under Websphere 9.x. The front end was based on Primefaces (JSF).

Task

Project owner of the project: Analysis and processing of the technical requirements in close cooperation with the responsible departments, creation of specifications and the required implementation tickets and quality assurance of the implementation.

Tools

Windows, Windows 10, Linux, Websphere, Websphere 9.5, Websphere Liberty, Websphere Liberty 21.x, RAD, Eclipse, DB/2, HTML, CSS, XML, UML, Java, Java 8, JEE, RAD, Maven, Swagger, Git/Stash, PrimeFaces, PrimeFaces 8, Scrum, Jira, Confluence, Microsoft Office

Project Size

ca. 6 MA, project language German, documentation German

Web

<https://kruse-it.de/canvasReferencesCBDIF.htm>



10/21 – 04/22 STOR – Suspicious activity reports on market abuse

Business

Finance

Abstract

Development of an application to collect, manage and provide analysis support for Suspicious Transactions and Orders Reports (STORS). This should enable the implementation of effective rules, systems and procedures to detect potential or actual market abuse.

All incoming SARs and their attachments are filed by the system. The responsible units analyse the received tip and, in a further step, support or pursue an initiated investigation. The necessary functional processes are to be implemented in the completely new application.

The implementation was implemented with of Websphere Liberty 21.x as a micro-service. The frontend was based on PrimeFaces (JSF). Frontend and backend were both designed as micro-services and communicated over a generated (Swagger) REST API.

Task

Project owner of the project: Analysis and processing of the technical requirements in close cooperation with the responsible departments, creation of specifications and the required implementation tickets and quality assurance of the implementation.

Tools

Windows, Windows 10, Linux, Websphere, Websphere 9.5, Websphere Liberty, Websphere Liberty 21.x, DB/2, RAD, Eclipse, HTML, SCSS, XML, UML, Java, Java 8, IntelliJ Idea, Maven, Swagger, Git/Stash, PrimeFaces, PrimeFaces 12, Jira, Confluence, Microsoft Office, Scrum

Project Size

ca. 8 MA, project language German, documentation German

Web

<https://kruse-it.de/canvasReferencesStor.htm>

11/20 – 10/21 RIKLA – Risk classification of financial products

Business

Finance

Abstract

The project dealt with the implementation of risk classification for capital management companies (KVG) and depositaries (VWA). The risk classification serves to determine the supervisory risk: A KVG or VWA must be assessed with regard to its stability.

A KVG/VWA is considered unstable if it is either no longer able to fully meet its economic obligations or no longer meets organisational requirements in a way that jeopardises its integrity, or otherwise loses its ability to exclusively safeguard the interests of the investors of the investment assets it manages, which may damage the integrity of the market or result in a loss of reputation of the fund industry and the supervisory authority.

The implementation was JEE-based on Websphere 9.x and Websphere Liberty 21.x. The frontend was based on PrimeFaces (JSF). Frontend and backend communicated via a REST API. The newly developed service for risk classification was designed as a micro-service.

Task

Project owner of the project: Analysis and processing of the technical requirements in close cooperation with the responsible departments, creation of specifications and the required implementation tickets and quality assurance of the implementation.

Tools

Windows, Windows 10, Linux, Websphere, Websphere 9.5, Websphere Liberty, Websphere Liberty 21.x, RAD, Eclipse, DB/2, HTML, CSS, XML, UML, Java, Java 8, JEE, RAD, Maven, Swagger, Git/Stash, PrimeFaces 8, Jira, Confluence, Microsoft Office, Scrum

Project Size

ca. 6 MA, project language German, documentation German

Web

<https://kruse-it.de/canvasReferencesIdis.htm>



04/20 – 11/20 Bread-Bake-Planner (PWA) – App for bread baking process support

Business Lifestyle

Abstract Conception, development and marketing of a Progressive Web App (PWA) to support the bread baking process of several breads. The app offers a recipe management, a planning area including resource allocation and conflict detection, appointment notification and recipe and baking plan printing. The client was designed as a Progressive Web App (PWA) Angular 10 application based on Angular Materials as a CSS framework, supporting auto-updates, home screen installation and push notifications (except iOS).

The client communicated with the server via a Rest API for business logic. The server was designed as a SpringBoot application with a Rest interface. The interfaces were described and generated for the client using swagger, and the interface was secured using SpringBoot Security and an OpenID-Connect implementation using JWT (role and scope based). The database was accessed and managed via JPA, but also had views and stored procedures to increase integrity and performance.

Task Team lead, analysis, design, implementation and angular client, conception and co-development of the SpringBoot based rest server and business model design, conception and implementation of staging and production environment.

Tools Windows, Windows 10, Linux, Angular, Angular 8, Angular 9, Angular 10, Angular Material, PWA, Progressive Web App, Node.js, RxJs, Redux, Json, Typescript, Typescript 3.9, Javascript, Java, Java 8, Spring Boot, Git/Stash, Bitbucket, Apache, Tomcat, HTML, SCSS, MariaDB, Swagger, OpenID Connect, OAuth2, Visual Studio Code, IntelliJ Idea, Bitbucket, Maven, Postman, Trello, PayPal, Open Office

Project Size 2 persons, project language German, documentation English.

Web <http://www.kruse-it.de/canvasReferencesCanundaPWA.htm>

01/19 – 04/20 DX/Refx – Airline Solution

Business Tourism industry

Abstract The solution enabled airlines to connect to the world's most widely used booking system, which is used by over 100 airlines. It offered a common community system for increased productivity and was available in 44 languages.

DX: Server-Client application with connection to a booking engine based on Java 7 and Weblogic 10. The interface was realized using aria templates and Javascript and was highly adaptable to the design and layout of the airlines. Thanks to the rule engine, each parameter could be modified based on input criteria. The workflow could also be adapted to the needs of the airlines. The solution has already been used by more than 80 airlines worldwide.

Refx: Completely new development of the DX functionality based on Angular 7/8, RxJs and Redux based on the OpenSource-Angular-Framework Otter.

The components were highly customizable in order to allow the airlines a deep customization of layout, design and workflows.

Task **DX:** Implementation and testing of additional functionality in the existing application, as well as maintenance and bug fixing.

Refx: Implementation and testing of new components for the airline-agnostic function library as well as a sample application.

Tools Windows, Windows 10, Linux, Angular, Angular 7, Node.js, RxJs, Redux, Json, Typescript, Javascript, Java, Java 7, Weblogic, Weblogic 10, Apache, HTML, SCSS, Freemarker, Visual Studio Code, IntelliJ Idea, Eclipse, Git/Stash, Jenkins, Bitbucket, Maven, Jira, Confluence, Scrum, SAFE

Project Size approx. 80++ persons, distributed development at four locations Nice, Bangalore, Malaga, Germany, project language English, documentation English

Web <http://www.kruse-it.de/canvasReferencesDxRefx.htm>



06/18 – 09/19 Alparka – Valet Service App

Business Logistics

Abstract Application for the administration of valet parking services, including staff deployment plan management and direct booking options for end customers. The application allowed the management of garages (characteristics, contingents, vouchers and voucher codes), the management of products, price matrices and price calendars (incl. holiday and holiday calendars), the management of bookings and direct booking options for the end customer, the management of employees and schedules and the management of car brands, models and the customer vehicle fleet. The server was designed as a SpringBoot application with a rest interface. The interfaces were described or generated for the different clients with Swagger. The protection was done via SpringBoot security and an OpenID-Connect implementation via JWT role- and scope-based. The database was accessed and managed via JPA.

The administration client was executed as Progressive Web App (PWA) Angular 8 application and was based on Angular Materials as CSS framework. Language and themes could be switched on-the-fly while the app was running. The booking client for the end customer and the administration client for the car park operator were implemented as a native iOS app in Swift.

Task Analysis, design, implementation and testing of the SpringBoot based rest server, database design and the Angular based administration client as a PWA application.

Tools Windows, Windows 10, Linux, Angular, Angular 8, Node.js, Json, Typescript, Javascript, Java, Spring Boot, Tomcat, HTML, SCSS, MariaDB, Swagger, OpenID Connect, OAuth2, Visual Studio Code, IntelliJ Idea, Git/Stash, Bitbucket, Maven, Postman, Trello, Open Office

Project Size 3 persons, project language English, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesAlparka.htm>

01/17 – 12/18 TravelApp – Aftersales-Platform

Business Tourism industry

Abstract Implementation of an aftersales platform to show the end user an overview of his booked travel services in the form of a timeline per journey and to import further bookings as well as the additional services (rental car, insurance, tours) with external providers. A white label version was developed whose focus was on a very fast adaptation to the look and feel of the respective end customer in order to enable an optimal integration on his website. The solution also allowed an adaptive depth of integration into the customer website - so e.g. the type of authentication chosen (default: OpenID Connect, based on OAuth2).

The implementation was done in a microservice architecture. The individual technical services were designed as spring boot containers, which operated central microservices. The web client was an Angular application that was also hosted in a Spring Boot Container and retrieved its data via a residual API. Together with the web client, an iOS and an Android client were developed to allow a broad mobile coverage.

Task Analysis, design, implementation and testing of the white label web client as well as all customer-specific characteristics.

Analysis, design, implementation and testing of end-endpoints.

Care and maintenance of the old application, until the complete replacement by the new implementation.

Tools Windows, Windows 10, Linux, Angular, Angular 2, Angular 4, Angular 5, Angular 6, Node.js, Json, Typescript, Javascript, Java, Spring Boot, Tomcat, HTML, SCSS, Kubernetes, KeyCloak, Microservices, OpenID Connect, OAuth2, Visual Studio Code, Eclipse, Git/Stash, Jenkins, Maven, Postman, Jira, Confluence, Scrum

Project Size 12 - 14 persons at three locations, project language English, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesTravelApp.htm>



11/16 – 01/17 Bread-Bake-Planner – App for bread baking process support

Business	Lifestyle
Abstract	Planning, preparation and processing of marketing campaigns. Integration of customer feedback, implementation and marketing of three releases with extended functionality. Planning of a professional line as a spin-off.
Task	Team lead, analysis, design and further implementation of the framework and the app based on it, marketing activities.
Tools	Windows, Windows 10, Visual Studio, Visual Studio 2015, C#, UWP, XAML, SQLite, ModernUI, Json, php, php 5.x, Multilingual: German/English, in-App-Purchase, Open Office
Projektgröße	ca. 2-3 persons, project language German, documentation English.
Web Link	http://www.kruse-it.de/canvasReferencesCanunda.htm http://www.apps.kruse-it.de/canunda/index.html

08/16 – 10/16 Selco – Frontend for reservation system

Business	Tourism industry
Abstract	Complete reimplementaion of the central reservation system for travel agencies based on given company architecture. Connecting the new frontend to the distributed, message-based backend system based on the given backend frameworks including the connected tour operator systems.
Task	Analysis, implementation and testing of the required services and message structures for the connection to the company-wide role and rights management. Analysis, implementation and testing of the general session and terminal handling including a persistence layer. Analysis, implementation and testing of the messages to the backend system and the tour operator systems.
Tools	Linux, Windows, Windows 10, C++, Open-Backend-Framework, Boost, MariaDB, XML, XSLT, XML Spy, Jira, Eclipse, Eclipse 4.x, Git/Stash, Scrum
Project Size	ca. 10-12 persons (Germany), Project language German, documentation English.
Web Link	http://www.kruse-it.de/canvasReferencesSelco.htm



03/16 – 08/16 TPFdeco – backend re-implementation

Business Tourism industry

Abstract Replacement of the existing company legacy system for the central back office tasks. For this purpose, the logic of the legacy system has been completely reproduced on the base of a distributed message-based open-end framework. The German office was in charge for the decommissioning of invoicing subsystem.

Since a very large number of customer-specific applications were built on the legacy system, the absolute conformity of new implementation to the old system was a key requirement. The implementation had to be »ISO« so that the same input had to produce exactly the same behaviour and the same output as in the legacy system.

Task Implementation and testing of parts of the required services and message structures of the invoicing subsystem within the specified backend frameworks:

»FinancialArranger« (creation and modification of financial entities)

»CombinedEntries« (processing of multiple inputs in the invoicing command chain)

Tools Linux, Windows, Windows 10, C++, Open-Backend-Framework, Boost, Oracle, Oracle 11i, SQLite, XML, XSLT, XML Spy, Jira, Eclipse, Eclipse 4.x, Mercurial, Scrum

Project Size ca. 14 persons (Germany), distributed development at the locations: Antwerp, Nice, Miami, Bangalore and Germany, project language English, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesTPFdeco.htm>

07/15 – 04/16 Bread-Bake-Planner – App for bread baking process support

Business Lifestyle

Abstract Design, development and commercialization of an UWP app to support the bread baking process of several breads. The app provides a recipe collection, a planning tool incl. resource allocation and conflict detection, appointment propagation into the Microsoft calendar app and recipe and bake plan printing. The recipe database and the bake plan are synchronized on all Windows 10 devices with the same account.

To simplify the implementation a framework was created that focuses on the following aspects:

Database synchronization, including on-the-fly import and merge between all devices on roaming and OneDrive, multi stage image synchronization between all devices on roaming and OneDrive, GUI abstraction to support all form factors and an extensive print support for rendering multi-page printouts incl. pagination.

Task Team lead, analysis, design and implementation of the framework and the app based on it.

Tools Windows, Windows 10, Visual Studio, Visual Studio 2015, C#, UWP, XAML, SQLite, ModernUI, Json, php, php 5.x, Multilingual: German/English, in-App-Purchase, Open Office

Project Size ca. 2-3 persons, project language German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesCanunda.htm>

<http://www.apps.kruse-it.de/canunda/index.html>



08/15 – 03/16 Leisure Evolution – leisure search support

Business Tourism industry

Abstract Development of a new, web-based hotel search that integrates seamlessly into the familiar workflow of travel agents.

The provider search is implemented using the standardized DRV interface (XML web services, "Player"-connection) directly in the provider systems and is an alternative and complement for travel agencies that want to specifically search for offers of a particular provider. The result list provides extensive additional information (hotel, photo, environment, weather, reviews ...) on the presented offers.

Task Analysis, implementation and testing of the required services and message structures for non-bookable-content (GIATA hotel, additional hotel information and reviews from various sources) incl. GIATA license management.

Analysis, implementation and testing of the required services and message structures for booking requests (vacancies) to the connected tour operator systems.

Tools Linux, Windows, Windows 10, C++, Open-Backend-Framework, Boost, Oracle, Oracle 11i, MariaDB, XML, XSLT, XML Spy, UML, Jira, Confluence, Eclipse, Eclipse 4.x, Mercurial, Scrum

Project Size ca. 10-12 persons (Germany), project language German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesLeisureEvolution.htm>

01/15 – 06/15 daVinci – international rail integration platform

Business Tourism industry

Abstract Integration of the Deutsche Bahn schedule for a major Benelux rail provider in an international reservation platform for rail providers, phase 1.

The platform allows the travel agency agent a unified access to all processes (shopping, booking ...) without any specific knowledge of the system of the rail provider system.

The focus was the functional analysis of the involved processes of the Deutsche Bahn and the booking platform needed for the customer's requirements.

Task Analysis of the necessary processes and message structures in the areas of shopping and booking of Deutsche Bahn (NVS) and the reservation platform and the integration of customer-specific processes.

Creation of the technical specification and a appropriate mapping between the systems involved. Presentation and delivery of results to the development team.

Analysis and preparation of the master data required for the processes, defining the processes for creating, maintaining and extending the master data. Supply of automation and monitoring tools for the process support.

Tools Microsoft Office, Microsoft Sharepoint, Jira, Altova MapForce, Microsoft Visio, C++, C#, Python, Scrum

Project Size ca. 9 persons (Germany), distributed development at three locations: France, Germany and Bangalore, project language English, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesDaVinci.htm>



04/14 – 12/14 Somea – social-media-platform

Business Tourism industry

Abstract Implementation of a Social Media Media Suite for travel agencies.

The Social Media Suite provides a unified platform to connect travel agencies to all major social media channels. The supported platforms are Facebook, Twitter, LinkedIn, YouTube, Instagram, Google+ and blogs Meiva (marketplace for their own travel arrangements).

Task Implementation of the complete administration module and the related processes.

Furthermore, extension, maintenance and bug fixing of the account-, reporting-, setup wizard-, media- and dialog module.

Designing and creating headless user acceptance testing using Ruby and Capybara.

Tools php, php 5.5, Javascript, Python, Ruby, CSS, HTML, TYPO3, Flow, NEOS, Fluid, Bootstrap, JQuery, Capybara, MySql, Apache, nginx, , IntelliJ Idea, phpStorm, Jira, Scrum

Project Size ca. 13 persons, distributed development at four locations: France, Germany, Australia, Toronto, project language English, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesSomea.htm>

09/13 – 03/14 Sammler – ModernUI framework for collections

Business Lifestyle

Abstract Design and development of a framework for "collection applications." The collection can be organized by any criteria into categories and capture the specific characteristics of every model of the owner. In addition, photo albums can be created and a chronicle of the history of the collection object are applying.

Based on the "collector" framework two apps have been developed and successfully deployed in the Microsoft Store: sammler:bonsai - management of bonsai and sammler: modelcar - management of model cars.

Both apps will benefit greatly from the framework and have only about 10% of its own code base.

Task Team lead, analysis, design and implementation of the framework and two apps based on it.

Tools Windows, Windows 8, Visual Studio, Visual Studio 2013, Windows RT, C#, SQLite, ModernUI, XAML, Teleriks, php, php 5.x, Mehrsprachigkeit: Deutsch/Englisch/Italienisch, in-App-Purchase

Project Size ca. 2-3 persons, project language English, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesSammler.htm>

<http://www.apps.kruse-it.de/sammlerbonsai/index.html>

<http://www.apps.kruse-it.de/sammlermodelcar/index.html>



01/12 – 12/13 RDP – international rail integration platform

Business Tourism industry

Abstract Integration of Deutsche Bahn in an international reservation platform for rail providers. The platform allowed the travel agency agent a unified access to all processes (shopping, booking, ticketing and refund) without specific knowledge of the rail provider system.

The focus was the functional analysis of the involved processes of the Deutsche Bahn and the booking platform across the entire sales process.

Task Analysis of the processes and message structures in the areas of shopping, booking and ticketing for Deutsche Bahn (NVS) and the reservation platform.

Creation of the functional specification and a suitable mapping between both systems. Presentation and transfer of the results to the implementation.

Specification and execution of the functional tests and quality management. Documentation of future maintenance processes of the created software.

Tools Microsoft Office, Microsoft Sharepoint, Altova MapForce, Microsoft Visio, C++, C#, Java, Python, XML, UML, Scrum

Project Size ca. 12 persons (Germany), distributed development at four locations: France, Germany, Australia, Toronto, project language English, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesRDP.htm>

03/12 – 03/13 TOOLine – tool collection for image processing

Business IT

Abstract »TOOLine« is the ideal tool to simplify recurring tasks in image processing.

The »TOOLine« is a collection of apps grouped to so-called »lines«. The »ImageLine« deals with image processing and offers 11 useful apps.

All »TOOLine« apps are working together seamlessly and even more - they can be composed to a workflow. All apps are based on the same framework and use the Windows Presentation Foundation (WPF) graphics routines for the transformations and rendering.

Task Team-Lead, Design and architectural responsibility, analysis, design and implementation of the application

Tools Windows, Windows XP, Windows Vista (32/64 Bit), Visual Studio, Visual Studio 2012, Microsoft .Net 4.5, C#, WPF, XAML, Linq

Project Size 1 person, project language German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesTooline.htm>
<http://www.tools.kruse-it.de/>

07/11 – 12/11 ecoVisor – energy consulting for residential buildings

Business Environmental Protection

Abstract Design and development of an application for energy consultants to implement the EnEV 2009 for residential buildings (see web link below). Implementation of the customer feedback from the evaluation phase. Planning, preparation and execution of marketing campaigns.

Task Team lead, coordination of marketing activities, technical preparation and execution of marketing campaigns

Tools Windows, Windows XP, Windows Vista, Windows 7 (32/64 Bit), Visual Studio, Visual Studio 2008, Visual Studio 2010, Microsoft .Net 3.5, Microsoft .Net 4.0, C#, WPF, XAML, CryptoLicencing, OOAD/OOD, Multilingualism: German/English/Romanian, multi-market capability

Project Size 4-6 persons, project language German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesEcoVisor.htm>
<http://www.ecovisor.eu/de/index.html>



05/10 – 06/11 Phoenix – travel reservation system

Business Tourism industry

Abstract Development of the successor of a travel reservation system for a large German tour operator on the base of modern technologies.

Apart from the use of state-of-the-art architectures such as SOA and RCP the project was focused on the flexibility of business processes and system documentation.

Task Analysis of the existing sales process in close cooperation with the different departments and design of the new system in UML. Presentations, organization and permanent reporting to the Architectural Board.

Planning, set-up and initial team-lead of development team related the "booking" part (about 9 developers) for the first two increments of five.

Tools Magic Draw 14.0, Magic Draw 16.6, Jira, Microsoft Sharepoint, UML, OOAD/OOD

Project Size ca. 40-100 persons (team size 15-50 persons), project language German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesPhoenix.htm>

09/09 – 04/10 ecoVisor – energy consulting for residential buildings

Business Environmental Protection

Abstract Design and development of an application for energy consultants to implement the EnEV 2009 for residential buildings. The software is characterized by a very simple handling and allows the user a questionnaire-based assessment, a visual expression of the energy consulting and an energy certificate hand-out directly at the customer.

The entire implementation was done using the Microsoft .Net 3.5/4.0 framework. The interface has been implemented with the Windows Presentation Foundation (WPF). Updates of the underlying XML database and community-wide shared template projects are done automatically when an online connection is available.

Task Team-Lead, Design and architectural responsibility, analysis, design and implementation of the application, technical implementation of the specifications of EnEV 2009.

Tools Windows, Windows XP, Windows Vista, Windows 7 (32/64 Bit), Visual Studio, Visual Studio 2008, Visual Studio 2010, Microsoft .Net 3.5, Microsoft .Net 4.0, C#, WPF, XAML, CryptoLicencing, OOAD/OOD, Multilingualism: German/English/Romanian, multi-market capability

Project Size 4-6 persons, project language German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesEcoVisor.htm>

<http://www.ecovisor.eu/de/index.html>



09/07 – 11/09 PCA – SOA application for monetary flow optimization

Business Financial services

Abstract Development of a SOA-based web application for optimizing the monetary flow to and from ATMs and involved safes. The primary purpose of PCA is to support the cash cycle in banks. This is done by the management of the physical cash flows to supply ATMs, automated teller safes, etc., for disposal of cash deposit, and for the supply and disposal of systems with closed circulation of money as cash recyclers or store inventories.

The implementation is based on J2EE (J2EE1.4 specification, including its sub-specifications and blueprints) on Websphere 6.x and JBoss 4.x in a service-oriented architecture (SOA). PCA represents only one of several specialized applications that were developed based on a product-line framework.

Task Analysis, design and implementation of technical components in the order and contract management. The particular focus was on the analysis and the subsequent refactoring of performance problems and the support of the QA in the specification of relevant software tests.

Tools Windows, Windows XP, Linux, Websphere, Websphere 6.1.2, JBoss, JBoss 4.1, Oracle, Oracle 9i/10g, XML, UML, Java, Java 1.4.2, SOA, J2EE, EJB, WebServices, Servlets, MKS, RAD, Eclipse, Eclipse 3.x, Maven, Ant, Jasper, Xalan, JDom, Junit, log4J, OOAD/OOD

Project Size ca. 20 persons (distributed project with two locations in Germany and China), project language German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesPCA.htm>

12/08 – 03/09 Katharsis – monthly-based invoice management

Business Education

Abstract Design and implementation of a monthly-based invoice management for small and medium private educational institutions with support of DTA direct debit.

The entire implementation is based on the Microsoft .Net 3.5 framework, the GUI has been implemented with the Windows Presentation Foundation (WPF) and the database was accessed via the Microsoft Linq framework.

Task Design and architectural responsibility, analysis, design and implementation of the application, deployment.

Tools Windows, Windows XP, Windows Vista (32/64 Bit), MS SQL-Server, MS SQL-Server 2008 compact, Visual Studio, Visual Studio 2008, Microsoft .Net 3.5, C#, WPF, XAML, Linq, Open Office

Project Size 1 person, project language German.

Web Link <http://www.kruse-it.de/canvasReferencesKatharsis.htm>

<http://www.kruse-it.de/canvasProductsKatharsis.htm>



08/07 – 09/07 BankCheck – web service for checking account numbers

Business Financial services

Abstract Development of a web service for checking account number and bank code number combinations. The web service supports the “Prüfzifferberechnungsmethoden der Deutschen Bundesbank” 00 to C6 (as of 09/2007). The web service is characterized by its high performance in batch mode (0.04 milliseconds per check or 25,000 checks per second). For this purpose, a framework was developed that supports the creation of new testing methods very easily.

The implementation is based on ASP.NET 2.0 with Visual Studio 2008 and runs under all versions of IIS. As an additional, front-end for demonstration purposes a test form was developed that can be integrated into any websites via iFrame-mechanism. A sample implementation was integrated into the DotNet Nuke Portal of the customer.

Task Technical task overall responsibility, design and architectural responsibility, analysis, design and implementation of the web service.

Tools Windows, Windows XP, Windows Server 2003, IIS, IIS 5, IIS 6, IIS 7, VisualStudio, VisualStudio 2008, C#, Webservices, ASP.Net 2.0, XML, OOAD/OOD

Project Size 2 persons, project language German

Web Link <http://www.kruse-it.de/canvasReferencesBankCheck.htm>

01/07 – 07/07 WYVE – web-based speech recognition service

Business IT

Abstract Location-independent, web-based speech recognition service (free dictation) with client applications based on it. A C #-based client for voice reception and -analysis (threshold analysis and activity detection) was developed as a prototype. The client was connected via web services (SOAP over HTTP) to the server application.

A framework was developed for the Tomcat-based server, which integrates any 3rd party Speech Recognition Engines and was able to switch between them at run-time. The prototype was evaluating the speech engines Sphinx 4.1 (Java) and Loquendo ASR (C/C++) for speech recognition quality, parallelism and load-stability). The integration of Loquendo was done via a JNA-based Mapper (Java <-> C/C++).

Task Technical overall responsibility and lead-development, design and architectural responsibility, analysis, design and implementation of the prototype, technical evaluation of the speech engines

Tools Windows, Windows XP, Linux, Tomcat, Tomcat 5.5.20, Java, Java 1.5, C#, C, C++, Sphinx 4.1, Loquendo 7.4.0, WebServices, Servlets, Subversion, Idea 6.2, Visual Studio 2005, JDom, Axis 1.4, JNA, Jfig, log4j, OOAD/OOD

Project Size 3 persons, project language German, distributed over three project sites.

Web Link <http://www.kruse-it.de/canvasReferencesWyve.htm>



03/07 – 07/07 Tokoname – Portal and client-server application for bonsai management

Business Lifestyle

Abstract Client-server application for centralized, multi-tenant management of bonsai trees and websites for each customer, presenting all of his bonsai trees ("bonsai garden"). Bundling of all those websites in a portal with overview functionality.

Presentation Layer: The bonsai gardens and the portal were using the ASP.NET 2.0 technology from Microsoft and "WebForms" including AJAX.NET 1.0. The administrative client is implemented in C# using "Windows Forms". It uses web services (SOAP over HTTP) for data transfer.

Business Logic Layer: The business logic is implemented via web services (SOAP over HTTP) using ASP.NET 2.0. The web services security implementation "WSE 3.0" is used to secure the web service calls.

Data Access Layer: The business logic layer uses the data services of the data access layer, which is bound via the ADO.NET framework to an MS-SQL Server database.

Task Design and architectural responsibility, technical project management, analysis, design and implementation of the application, deployment.

Tools Windows, Windows 2003, Windows XP, IIS, IIS 5.1, IIS 6.0, MS SQL-Server, MS SQL-Server 2005, Visual Studio 2005, PLESK 8.x, C#, ASP.Net 2.0, ASP.NET AJAX 1.0, WSE 3.0, log4net

Project Size 2 persons, project language is German, documentation English.

Web Link <http://www.kruse-it.de/canvasReferencesTokoname.htm>
<http://www.tokoname.kruse-it.de/>

04/06 – 03/07 BRAVO – online-search in tour operator systems

Business Tourism industry

Abstract Development of a J2EE-based reservation system for the connection of 35,000 clients and the direct connection of individual tour operator systems to offer online search in the current inventory and an on-the-fly availability check. The connected tour operator systems can vary their search criteria (region tree, default values of search criteria) in many areas and with immediate effect. The technical connection is done via an OTA / TORIX interface using web services / SOAP.

Task Design and architectural responsibility, technical support of project management (coordination and developer support), analysis, design and implementation of the architecture framework and application parts, technical documentation and expertise transfer to the project staff.

Tools Windows, Windows NT, Windows 2000, Windows XP, Sun OS 8, JBoss 4.01 SP1, XML, UML, Java, Java 1.4.2, Java 1.5, J2EE, EJB, WebServices, Servlets, WinCVS 2.0, XML Spy, XML Spy Professional 2004, Eclipse, Eclipse 3.x, Idea 4.5, Ant 1.6.2, Xalan, JDom, Junit, log4j

Project Size ca. 8 persons, project language English.

Web Link <http://www.kruse-it.de/canvasReferencesBravo.htm>



01/05 – 03/06 LeGo – B2B client-server reservation system for travel agencies

- Business** Tourism industry
- Abstract** Extension of a J2EE-based reservation system for the connection of 35,000 clients and the integration of 40 tour operator systems. Integration into the company portfolio and extension of the system's overall functionality.
- Task** Design and architecture co-responsibility, support of technical project management (coordination and support-developers), analysis, design and implementation of the architecture framework and application parts, support for load- and performance tests. Documentation and expertise transfer to the departments.
- Tools** Windows, Windows NT 4.0/2000/XP, Sun OS 8, BEA Weblogic Server 8.3, XML, JAVA (1.4.2/1.5.4), J2EE, EJB, WebServices, Servlets, MKS 8.2, XML Spy Professional 2004, JBuilder 7.0 Professional / Enterprise, Eclipse 3.x, Idea 4.5, Ant 1.5, Xalan, JDom, Junit, log4J
- Project Size** ca. 30 persons, project language English.
- Web Link** <http://www.kruse-it.de/canvasReferencesTomaPremium.htm>

07/03 – 12/04 LTS (Intern. Version) – B2B client-server reservation system for travel agencies

- Business** Tourism industry
- Abstract** Internationalization and scaling aspects of the basic architecture of a J2EE-based reservation system for the connection of 35,000 clients and the integration of 40 tour operator systems including French tour operators. Extension of the system's overall functionality.
- Task** Chief design, technical project management support (developer support and coordination), architectural responsibility, analysis, design and implementation of the architecture framework and application parts.
- Tools** Windows, Windows NT 4.0/2000/XP, Sun OS 8, BEA Weblogic Server 8.1, XML, JAVA (JDK 1.3.1, 1.4.0, 1.4.1), J2EE, EJB, WebServices, Servlets, MKS 8.2, XML Spy 3.5, JBuilder 7.0 Professional / Enterprise, Eclipse 2.01, Idea 3.4, Ant 1.5, Xalan, JDom, Junit, log4J
- Project Size** ca. 45 persons, project language English.
- Web Link** <http://www.kruse-it.de/canvasReferencesTomaPremium.htm>

09/02 – 06/03 LTS (German Version) – B2B client-server reservation system for travel agencies

- Business** Tourism industry
- Abstract** Design and implementation of the basic architecture and the application logic of a J2EE-based reservation system for the connection of 35,000 clients and the of 40 tour operator systems.
- Task** Chief design, technical project management support (developer support and coordination), architectural responsibility, analysis, design and implementation of the architecture framework and application parts.
- Tools** Windows, Windows NT 4.0/2000, Sun OS 8, BEA Weblogic Server 7.1/8.1, Weblogic Workshop, XML, JAVA (JDK 1.3.1, 1.4.0, 1.4.1), J2EE, EJB, WebServices, Servlets, MKS 8.2, XML Spy 3.5, JBuilder 7.0 Professional / Enterprise, Eclipse 2.01, Idea 3.0, Ant 1.4 und 1.5, Xalan, JDom, Junit, log4J
- Project Size** 25 persons, project language English.
- Web Link** <http://www.kruse-it.de/canvasReferencesTomaPremium.htm>



04/02 – 09/02 LTS (prototype) – B2B client-server reservation system for travel agencies

- Business** Tourism industry
- Abstract** Evaluation and implementation of the basic architecture of a J2EE-based reservation system for the connection of 35,000 clients and the integration of 40 tour operator systems.
- Task** Chief design, technical project management support (developer support and coordination), architectural responsibility, analysis, design and implementation of the architecture framework and application parts.
- Tools** Windows, Windows NT 4.0, Sun OS 8, BEA Weblogic Server 6.1 und 7.0, XML, JAVA (JDK 1.3.1 und 1.4), J2EE, EJB, WebServices, Servlets, MKS 8.2, XML Spy 3.5, JBuilder 6.0 Professional / Enterprise, Ant 1.4 und 1.5, Xalan, JDom, Junit, log4J
- Project Size** 15 persons, project language English.
- Web Link** <http://www.kruse-it.de/canvasReferencesTomaPremium.htm>

06/01 – 03/02 Portevo – B2B web portal

- Business** Tourism industry
- Abstract** Architectural design and implementation of a B2B portal on a J2EE platform for unification of the company's presence. About 14 portal applications and 2000 content pages has been integrated or developed.
- Portevo won the award for "Application of the Year 2002" (competition for the best IT project in Germany) of the journal "Computer Woche". From 41 candidates Portevo came in the top 5 finalists (ADAC, Citibank, DHL, Dresdner Bank and Portevo).
- Task** Analysis, design and implementation of the portal framework to integrate a new portal application, the overall navigation, content management and import and workflow engine.
- Tools** Windows, Windows NT 4.0, Sun OS 8, Weblogic, Weblogic Server 6.0, Weblogic Server 6.1, HTML, XML, XSL/T, UML, Java, Java 1.3.0, Java 1.3.1, J2EE, EJB, Servlets, CVS, XML Spy 3.5, JBuilder, JBuilder 4.0 Professional / Enterprise, Ant 1.2 und 1.3, Cocoon 1.0, Xalan, JDom, Struts, Junit, log4J, OOAD/OOD
- Project Size** 25 persons (distributed development at two locations: Germany - Ireland), project language English.
- Web Link** <http://www.kruse-it.de/canvasReferencesPortevo.htm>

01/01 – 05/01 CANIS – B2B-intranet call-centre application

- Business** Logistics
- Abstract** Architecture design and prototype implementation of an intranet call-centre application based on J2EE.
- Task** Requirements analysis (OOA), design and architecture (OOD), implementation with J2EE technology, expertise transfer of the results.
- Tools** Windows, Windows NT 4.0, Weblogic, Weblogic Server 5.2, Weblogic Server 6.0, HTML, XML, UML, Java, Java 1.2, Java 1.3, J2EE, EJB, Servlets, JSPs, PVCS, Visual Source Safe, Together 4.2, JBuilder 4.0, Ant, Homesite 4.5, OOAD/OOD
- Project Size** 10 persons, project language German, documentation German.
- Web Link** <http://www.kruse-it.de/canvasReferencesCanis.htm>



05/00 – 09/00 S@M – B2B client-server back office

- Business** Tourism industry
- Abstract** Definition and design of the technical architecture (middleware, legacy system integration platform) of a company in the travel agency industry.
- Task** Requirements analysis, evaluation of different middleware designs, architecture design, guidelines responsibility, presentation, planning of follow-up project
- Tools** Windows, Windows NT 4.0, Weblogic, Weblogic Enterprise, XML, J2EE, EJB, Java, C++, Visual C++ (32), Paradigm+ 3.6, UML, OOA/OOD
- Project Size** ca. 110 persons, team size 4 persons, project language German, documentation English.

08/98 – 05/00 SAM – B2B client-server back office

- Business** Tourism industry
- Abstract** Client-server OO project in the travel agency industry. Connecting approximately 30,000 clients through the customer's own network (9600 baud). Management of customer-, order- and organization-specific data (customizing).
- Task** Responsibility of architecture (chief architect), design, design review, architectural coordination and guidance of three technical sub-projects, analysis, design and implementation responsibility for all technical based services.
- Tools** Windows NT 4.0, Reliant Unix 5.44, Visual C++ (32), CDS++, Informix, OO-Mapper GINA, MKS, CVS, Paradigm+ 3.6
- Project Size** ca. 70 persons, team size 14 persons, project language German, documentation English.

08/97 – 07/98 SMN – B2B client-server back office

- Business** Tourism industry
- Abstract** Client-server OO project in the travel agency industry. Connecting approximately 30,000 clients through the customer's own network (9600 baud). Management of customer-, order- and organization-specific data (customizing).
- Task** OO design (UML) and implementation of domain model classes for displaying organizational structures and customizing of person- and order data Responsibility for component development, OO design (UML) and realization of a serializing component for transmission of object graphs between client and server.
- Tools** Windows, Windows NT, Unix, Reliant Unix 5.44, C++, Visual C++ (32), CDS++, Informix, OO-Mapper GINA, MKS, CVS, Paradigm+ 3.6, UML, OOAD/OOD
- Project Size** ca. 50 persons, team size 10 persons, project language German, documentation English.

06/97 – 08/97 Pareto

- Business** Mechanical Engineering Industry
- Abstract** Application for warranty costs management including Pareto analysis.
- Task** Project responsibility, requirements analysis, design (SA) and implementation of the application, introducing and training of customers.
- Tools** Windows, Windows 95, Windows NT, Delphi 2, Paradox, Excel 95
- Project Size** 2 persons, project language German, documentation German.



04/96 – 11/98 Delos

- Business** Mechanical Engineering Industry
- Abstract** Part list download from SAP R2, part list presentation and management including remote data transfer of the parts to suppliers, automatic version control and differential analysis of BOM versions.
- Task** Project responsibility, requirements analysis, design (SA) and implementation of the application, introducing and training of customers.
- Tools** Windows, Windows 3.11, Windows 95/NT 3.5, Delphi 1, Delphi 2, Entire-Connection, SAP R2
- Project Size** 4 persons, project language German, documentation German.

03/96 – 04/97 HTML-Viewer

- Business** IT
- Abstract** Development of a HTML Viewer library (HTML 2.0) as a cross-platform project (Windows 3.11, Windows 95/NT and OS / 2).
- Task** Team lead, OO Analysis, Design and Implementation
- Tools** Windows, Windows 3.11, Windows 95/NT, OS/2, Visual C++ (16/32), Ansi C, Delphi 1, Delphi 2, VisualBasic 2.0, MFC, HTML, FTP, HTTP, CGI
- Project Size** 5 persons, project language German, documentation German.

11/95 – 02/96 Database Layer

- Business** IT
- Abstract** Development of an abstract database layer for accessing ODBC, IDAPI and native database drivers.
- Task** Team lead, OO Analysis, Design and Implementation
- Tools** Windows, Windows 95/NT, Visual C++ (32), Ansi C, ODBC, SQL, MFC
- Project Size** 3 persons, project language German, documentation German.

02/95 – 03/09 Katharsis

- Business** Education
- Abstract** Invoice management application for dyslexia schools with accounting and printing, and electronic debit payments (DTAUS), versions 1.0-1.7, 2.0-2.2 and 3.0.
- Task** Project responsibility, requirements analysis, design (SA) and implementation of the application, introducing and training of customers.
- Tools** Windows, Windows 3.11, Windows 95/98, Delphi 1, Delphi 2, Delphi 3, Delphi 5, Paradox
- Project Size** 1 person, project language German, documentation English.

05/94 – 11/94 Erasmus

- Business** IT
- Abstract** Legal software, literature search database for lawyers including "Juris" connection.
- Task** Design and implementation of the query engine and database access layer
- Tools** Windows, Visual C++ (16), Ansi C, VisualBasic für DOS, VisualBasic für Windows
- Project Size** 1 person, project language German, documentation German.

01/90 - 04/94 Several Projects

- Business** Approximately seven projects, further information on request
- Abstract** Btrieve, DbFast für Windows, dBase, Clipper Sommer 85, Herbst 86, Clipper 5.0, Ansi C, Borland C++, GNU C++, Visual C++ (16/32 Bit)

