Torsten Weigel e. Kfm.
Consulting & Project Management
for Financial Markets

Financial Markets Senior Consultant

Self-employed Business Consultant

Torsten Weigel e. Kfm.
Eichenstraße 1 B 61440 Oberursel
Germany

Mobile: +49 (1522) 322 622 5
E-Mail: info@torstenweigel.de

Core Competencies

- Experienced business consultant, solution architect and project lead with emphasis in Financial Markets
- IT & Investment Banking know-how along the system and process chain
- Trading and Risk Management systems, expert for FRONT ARENA /PRIME
- Quantitative methods of valuation, risk measurement and profit & loss determination for financial instruments
- Interdisciplinary and cross-system implementation of business and regulatory requirements
- Classic and agile methods for project management, software development and testing

Personal Facts

- Datenverarbeitungskaufmann, self-employed entrepreneur since 1993
- Mother tongue German, English business fluent
- Team player with methodical and social competence
- Experienced with internationally distributed and agile project teams
- Pragmatist with problem-solving mentality

Technical Skills and Certifications

Operating systems	Windows, Unix, MacOS
Programming languages	Python, C/C++, Java
SQL Databases	Microsoft, Sybase, Oracle
FRONT ARENA Extension Framework (AEF)	ASQL, AEL, ACM, ADFL, further AEF technologies and API`s
Project Management	PMP, PRINCE2 Practitioner
Test Management	ISTQB Test Manager
Risk Management	M_o_R Practitioner
IT Service Management	ITIL V3 Service Design, Transition, Operation
Agile Methods	Professional Scrum Master (PSM), Professional Scrum Product Owner (PSPO)

Content of selected Projects

- **Projects around FRONT ARENA /PRIME**
  Since 1999 I am working as business consultant, solution architect and project manager with the Trading and Risk Management system FRONT ARENA / PRIME. The assignments range from the implementation of the system to the creation of new business segments or asset classes to the regular release upgrades to ensure the manufacturer support. I have in-depth business and system knowledge and an established network to the well-known specialists in the market and to the manufacturer FIS (formerly Sungard).
- **Implementing EMIR Initial Margin for the uncleared (bilateral) OTC derivative business**
  Implementing regulatory requirements for the EMIR Initial Margin as business project lead and solution architect for Treasury. The implementation process includes the introduction of TriOptima & AcadiaSoft's Initial Margin Exposure Manager (IMEM) for the IM calculation (using the ISDA SIMM Model), the upgrade of the Ledis application and to support Legal department with swift clarification of economic issues in the ongoing contract negotiations with counterparties and custodians.
- **Implementing Quantifi CVA (Credit Valuation Adjustment)**
  System implementation of Quantifi CVA, a solution used for integrated exposure simulations of credit risks and refinancing costs for OTC derivatives.
- **Enhancing and optimizing the ETF business in FRONT ARENA**
  Expansion of tradable financial products and asset classes, integration of new stock exchanges and trading platforms, and further development of the algo trading infrastructure for the market maker ETF.
- **Coordination of new product launches for Treasury & Trading**
  Coordination of the implementation activities in the new product process, responsible to plan, design and implement the product requests from Treasury & Trading along the system and process chain.
- **Implementing OTC Interest Rate & Credit Derivatives**
  Introduce the organizational structure for the banking function „Financial Engineering“ along the process chain (Capital Markets, Risk Management, Back Office, Accounting, Compliance etc.), decide about appropriate interest rate term structure and credit risk models, develop the pricing libraries and also the integration layer for the Trading and Risk Management system (FRONT ARENA, Calypso).

Project summary

Year	Position	Customer	Project	Span of control	Budget	System Environment
2020 - actual	FRONT ARENA Expert	Bank (Capital Markets)	FRONT ARENA Upgrade (Version 2017.4 to 2021.x)			FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center, Jira
2020 - 2021	FRONT ARENA Expert & Solution Architect	Bank (Capital Markets)	Implementing FRONT ARENA ALGO Trading for EUREX Futures (Commission Trading)			FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), OMNI, RAMSA, FIXatdl, Python, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center, Jira, EUREX (Simulation)
2019 - 2020	Business Project Lead & Solution Architect	Bank (Treasury)	EMIR Initial Margin (IM)	30 Co-workers	2 Mio. €	Algo Collateral, Ledis, TriOptima (TriResolve), AcadiaSoft (IMEM, Initial Margin Exposure Manager), Murex, FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
2017 - 2018	FRONT ARENA Expert	Bank (Capital Markets)	FRONT ARENA Upgrade (Version 2012.1 to 2017.4)			FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center, Jira
2016 - 2017	Project Lead & FRONT ARENA Expert	Bank (IT)	FRONT ARENA Upgrade (Version 2012.2 to 2016.5)	30 Co-workers	3 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
2015 - 2016	Project Lead & Solution Architect	Bank (IT)	Implementing Quantifi CVA (Credit Valuation Adjustment)	30 Co-workers	8 Mio. €	Quantifi CVA, Murex, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), FpML, Clarity, HP Quality Center, Jira
2013 - 2014	Project Lead & Solution Architect	Bank (IT)	Implementing interexa DMC (EMIR Risk Mitigation)	20 Co-workers	7 Mio. €	interexa DMC, Murex, FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), FpML, Clarity, HP Quality Center, Jira
2012 - 2013	Project Lead & FRONT ARENA Expert	Bank (IT)	FRONT ARENA Upgrade (Version 4.2 to 2012.2)	30 Co-workers	3 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
2011 - 2012	Project Lead & FRONT ARENA Expert	Bank (IT)	FRONT ARENA Upgrade (Version 2.2 to 2012.1)	60 Co-workers	19 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center
2010 - 2011	Project Lead & Solution Architect	Bank (IT)	Coordination of new product launches for Treasury & Trading	30 Co-workers	3 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Murex, Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
2010	Project Lead & Solution Architect	Bank (IT)	Reorganisation of IT for the business unit ETF	30 Co-workers	1 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), individual software ETF Trading & Market Making, Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2009 - 2010	Project Lead & Solution Architect	Bank (Capital Markets)	Enhancing & Optimizing the ETF Business in FRONT ARENA	40 Co-workers	6 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), individual software ETF Trading & Market Making, Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2008 - 2009	Project Lead & Solution Architect	Bank (Capital Markets)	Implementing OTC Interest Rate Derivatives in FRONT ARENA	20 Co-workers	4 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), QuantLib, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2007 - 2008	Project Lead & Solution Architect	Bank (IT)	Implementing OTC Interest Rate Derivatives in Calypso	30 Co-workers	5 Mio. €	Calypso, Nordic Analytics, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2007	Project Lead & Solution Architect	Bank (IT)	Coordination of new product launches for Treasury & Trading	30 Co-workers	4 Mio. €	Kondor+, Murex, Sophis Risque, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2006	Project Lead & Solution Architect	Asset Manager (IT)	Upgrade Trading System & Introducing Portfolio Compliance-checks in Apollo	20 Co-workers	1 Mio. €	Apollo, Barra, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2005 - 2006	Project Lead & Solution Architect	Bank (Capital Markets)	Implementing OTC Interest Rate & Credit Derivatives in FRONT ARENA	20 Co-workers	3 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Summit, SCI Finance, Mathematica, Moosmüller & Knauf, Numerix, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2004	Project Lead & Solution Architect	Bank (IT)	Pre-study for OTC Interest Rate & Credit Derivatives in FRONT ARENA	20 Co-workers	1 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Summit, SCI Finance, Mathematica, Moosmüller & Knauf, Numerix, Monis, QuantLib, MBRM, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
2003	Project Lead & Solution Architect	Bank (IT)	Implementing FRONT ARENA & Setup Line Operations	20 Co-workers	1 Mio. €	FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Summit, Moosmüller & Knauf, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
1999 - 2002	FRONT ARENA Consultant	Bank (Capital Markets)	Setup Fixed Income & Securities Finance Trading in FRONT ARENA			FRONT ARENA /INTAS /ATLAS /PRIME (ASQL, AEL, ACM, ADFL), Summit, Moosmüller & Knauf, Python, C/C++, SQL-Databases, ETL-Tools (Middleware)
1993 - 1999	IT Consultant & Trainer	Trading Firms, Industry and Public Sector	diverse			diverse

Project details

FRONT ARENA Upgrade (Version 2017.4 to 2021.x)

FRONT ARENA Expert (Bank, Capital Markets)

2020 / actual

Activities and Responsibilites:

- FRONT ARENA expert and central contact person for the business departments involved in the customer's FRONT ARENA upgrade project from the current version 2017.4 to the target release 2021.x.
- Conducting a professional validation of the FRONT ARENA target release:
  - Checking the relevant calculated values (“Calculated Values Analysis”), in particular for the valuation, risk calculation and profit & loss determination.
  - Analysis and, if necessary, adaptation of the parameterization (for example, consideration of changed accounting and valuation parameters, context mappings and authorization objects).
  - Execution of a Value at Risk (VaR) probation calculation to determine the necessity of a regulatory parallel operation of the FRONT ARENA releases (if the VaR jump is greater than 1%).
  - Verification of the functionality for the external valuation library and the remote grid for the structured OTC products and certificates.
  - Analysis of data quality problems as well as the coordination of activities for their correction with line units (keyword: increased data quality requirements in the FRONT ARENA target release).
  - Coordination of the valuation relevant changes between the FRONT ARENA releases with the responsible line unit "Model Validation".
- Documentation and linking of the aforementioned analysis results with the affected FRONT ARENA test objects in Jira and HP Quality Center.
- Regular clarification of methodical changes between the FRONT ARENA releases as well as the identified software bugs with a customer panel of business matter experts.
- Coordination of necessary bug fixes and workarounds with the software vendor FIS in Stockholm and the FRONT ARENA development team at the customer's site.
- Professional support of the FRONT ARENA development team with the migration of customer-specific business logic to the target release.
- Coordination of the test procedure and planning with Test and Project Management.
- Support of the User Acceptance Tests (UAT) by providing detailed explanations for deviations in Trading Manager Workbooks, Python interfaces and ASQL queries.
- Regular reporting on management level about methodical findings of the Calculated Values Analysis and the current state of quality of the target release.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center, Jira

Project details

Implementing FRONT ARENA ALGO Trading for EUREX Futures (Commission Trading)

FRONT ARENA Expert & Solution Architect (Bank, Capital Markets)

2020 / 2021

Activities and Responsibilites:

Business consultant and solution architect to introduce the FRONT ARENA ALGO trading functionality for EUREX Futures in Commission Trading. Central contact person for Trading, Risk Management, Compliance and IT, and for the software vendor FIS.

- Analysis and design of the ALGO Trading functionality and related processes, documented in an agreed-upon business concept, that describes all aspects of the solution to be delivered by the project:
  - ALGO trading strategies for EUREX futures:
    - ✓ Arrival Price (Implementation Shortfall)
    - ✓ Time Weighted Average Price (TWAP)
    - ✓ Volume Weighted Average Price (VWAP)
    - ✓ Volume Participation
    - ✓ Market on Close (MoC)
  - Analysis of the ALGO trading functionality and used models in FRONT ARENA based on works of Almgren & Chriss (various papers from 2000-2005).
  - Quantitative analysis of historically traded EUREX future volumes around expiry dates (future rollover) in order to enable the use of ALGO trading strategies only, if there is enough liquidity in the market.
  - Definition of the RAMSA parameters for the historization of EUREX future prices and volumes (depending on the selected ALGO parameters, that are important input data to determine the ALGO execution plan).
  - Implementation of the regulatory MiFID2 requirements for the usage of ALGO trading functionality (Delegated EU Regulation 2017/589 dated 19.07.2016).
  - Support of the business departments and IT with design and implementation of required ALGO test and control processes for business operations.
  - Definition of trader requirements regarding ALGO functions, status informations and calculated values in the system:
    - ✓ Parameterization and order control functionality in OMNI and PRIME.
    - ✓ Pre-trade analysis to forecast the order execution based on historically traded volumes and prices - such calculated values will be created on request before the ALGO trading routine will be activated.
    - ✓ Monitoring functions for the status of ongoing ALGO processes, existing orders in the market, trades already carried out, the percentage of fulfillment of the ALGO order etc.
    - ✓ Post trade analysis to assess the ALGO execution quality in comparison to defined benchmarks - calculated values can be determined on request after the ALGO order execution process has been completed.
    - ✓ Control functions for an overall activation and deactivation of ALGO trading strategies in the system as well as an ALGO kill switch to immediately stop ongoing trading activities and delete existing orders in the market.

Project details

- Integration of the ALGO solution into the client's system and process landscape:
  - Business support for the Professional Services Team (FIS) regarding the technical delivery and configuration of the required ALGO functionality.
  - Support of IT in design and implementation of technical ALGO processes (the regulatory stress test for the ALGO system environment, automated market data uploads as fallback solution for RAMSA historization etc.).
  - Coordination of functional requirements and bug fixes or workarounds with the manufacturer FIS in Stockholm or its Professional Services Team on site.
- User Acceptance Test (UAT) and EUREX ALGO Certification:
  - Development of the ALGO test strategy and definition of repeatable test cases to execute them in an exclusive ALGO test environment with a connection to the EUREX simulation.
  - Supporting the commission traders with the ALGO test execution, analysis of deviations and documentation of the test results in HP Quality Center.
  - Conducting the certification process for the ALGO trading strategies at EUREX (their approval is mandatory before the customer can use the ALGOs productively).
- Regular reporting to the business project lead about the progress of the EUREX ALGO integration as well as identified quality issues and bugs that needs to be fixed.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), OMNI, RAMSA, FIXatdl, Python, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center, Jira, EUREX (Simulation)

Project details

EMIR Initial Margin (IM)

Business Project Lead & Solution Architect (Bank, Treasury)

2019 / 2020

Activities and Responsibilites:

- Planning, implementing and controlling the activities to introduce the EMIR Initial Margin collateral process for uncleared, bilateral OTC derivative transactions (Delegated EU Regulation 2016/2251 dated 04.10.2016).
- Analysis and selection of suitable calculation methods and models for Initial Margin exposure and their impact on future funding costs:
  - The market standard for the IM exposure calculation is the standardized ISDA SIMM model, a variance-covariance approach for the determination of a 10-day potential future exposure (PFE) with 99% confidence level.
  - Alternatively, it is possible to use a simple exposure determination with product class and maturity-specific nominal weights (IM Standard Method). However, the big disadvantage here is a significantly higher IM exposure and thus much higher funding costs compared to the use of an internal IM model such as the aforementioned ISDA SIMM model.
- Defining and providing trade data and their risk factor sensitivities from the bank's trading systems as inputs to the ISDA SIMM model.
- Defining the product allocations for the ISDA SIMM model based on the contracts confirmed by the BackOffice. This task is a key success factor to avoid later problems in the daily reconciliation process with OTC counterparties due to the regulator's chosen internal model mechanics (correlation effects between the risk factors are considered only within one asset class, but not across asset classes).
- Implementation of regulatory exceptions for FX derivatives (no initial margin obligation for included principal payments in Cross Currency Swaps, no IM collateral needed for physically delivered FX Forwards and FX Swaps).
- Upgrading the Ledis application to provide the necessary Initial Margin functionality for the Legal department (IM Credit Support Annexes, IM netting and collateral flags, pledged securities deposits, IM legal opinions, etc.).
- Creating an Initial Margin Policy as the basis for the upcoming legal negotiations with the OTC counterparties and custodians.
- Supporting the Legal department with the time-intensive contract negotiations by a swift clarification of relevant economic conditions with Treasury and Capital Markets.
- Specification of the Initial Margin business processes as well as resulting requirements for IT systems and interfaces.
- Setting up the Initial Margin collateralisation processes in Algo Collateral.
- Provision of the calculated Initial Margin amounts as well as the provided IM securities collateral for downstream limit and risk systems and the data warehouse.
- Ensuring legal archiving regulations for the initial margin process in the Collateral Management department.
- Establishing a requirement and fault management with the external software vendors.
- Implementing an effective test management and regular reconciliation with the test manager.
- Reporting of project progress and risk situation to senior management.
- System environment: Algo Collateral, Ledis, TriOptima (TriResolve), AcadiaSoft (IMEM, Initial Margin Exposure Manager), Murex, FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
- Leadership for up to 30 employees and 5 business units.
- Budget responsibility: 2 Mio. €

Project details

FRONT ARENA Upgrade (Version 2012.1 to 2017.4)

FRONT ARENA Expert (Bank, Capital Markets)

2017 / 2018

Activities and Responsibilites:

- FRONT ARENA expert and central contact person for the business departments involved in the customer's FRONT ARENA upgrade project from the current version 2012.1 to the target release 2017.4.
- Conducting a professional validation of the FRONT ARENA target release:
  - Checking the relevant calculated values (“Calculated Values Analysis”), in particular for the valuation, risk calculation and profit & loss determination.
  - Analysis and, if necessary, adaptation of the parameterization (for example, consideration of changed accounting and valuation parameters, context mappings and authorization objects).
  - Execution of a Value at Risk (VaR) probation calculation to determine the necessity of a regulatory parallel operation of the FRONT ARENA releases (if the VaR jump is greater than 1%).
  - Verification of the functionality for the external valuation library and the remote grid for the structured OTC products and certificates.
  - Analysis of data quality problems as well as the coordination of activities for their correction with line units (keyword: increased data quality requirements in the FRONT ARENA target release).
  - Coordination of the valuation relevant changes between the FRONT ARENA releases with the responsible line unit "Model Validation".
- Documentation and linking of the aforementioned analysis results with the affected FRONT ARENA test objects in Jira and HP Quality Center.
- Regular clarification of methodical changes between the FRONT ARENA releases as well as the identified software bugs with a customer panel of business matter experts.
- Coordination of necessary bug fixes and workarounds with the software vendor FIS in Stockholm and the FRONT ARENA development team at the customer's site.
- Professional support of the FRONT ARENA development team with the migration of customer-specific business logic to the target release.
- Coordination of the test procedure and planning with Test and Project Management.
- Support of the User Acceptance Tests (UAT) by providing detailed explanations for deviations in Trading Manager Workbooks, Python interfaces and ASQL queries.
- Regular reporting on management level about methodical findings of the Calculated Values Analysis and the current state of quality of the target release.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center, Jira

FRONT ARENA Upgrade (Version 2012.2 to 2016.5)

Project Lead & FRONT ARENA Expert (Bank, IT)

2016 / 2017

Activities and Responsibilites:

- Planning, implementing and controlling the FRONT ARENA upgrade from version 2012.2 to target 2016.5.
- Conducting a comprehensive cleanup task to reduce migration costs.
- Setting up the configuration management: FRONT ARENA instances and their releases, source code management, delivery of migrated objects and parametrisations, rhythm of database and software updates etc.
- Coordinating the migration process of FRONT ARENA objects, the external valuation architecture and the Softbroker infrastructure.
- Validation and clarification of methodical changes between the releases until final business sign-off.
- Controlling relevant dependancies of the project, e.g. the implementation of the MiFID2 requirements.
- Establishing a requirement and fault management with the software vendor Sungard.
- Implementing an effective test management and regelular reconciliation with the test manager.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
- Leadership for up to 30 employees and 10 business units.
- Budget responsibility: 3 Mio. €

Implementing Quantifi CVA (Credit Valuation Adjustment)

Project Lead & Solution Architect (Bank, IT)

2015 / 2016

Activities and Responsibilites:

- Planning, conducting and controlling the system implementation of Quantifi CVA, a solution used for integrated exposure simulations of credit risks and refinancing costs for OTC derivatives.
- Coordinating the negotiations with the external software provider.
- Supporting risk management and trading in the design of risk factor simulations, risk figures and surrounding processes (CVA, DVA, FVA, sensitivities, P&L explain, end of day-/end of month processes etc.).
- Design of data requirements and integration of the application in the complex IT architecture.
- Coordinating the IT implementation as well as necessary process changes in business units.
- Establishing a requirement and fault management with the external software vendor.
- Implementing an effective test management and regelular reconciliation with the test manager.

- Reporting of project progress and risk situation to senior management.
- System environment: Quantifi, Murex, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), FpML, Clarity, HP Quality Center, Jira
- Leadership for up to 30 employees and 2 business units.
- Budget responsibility: 8 Mio. €

Implementing interexa DMC (EMIR Risk Mitigation)

Project Lead & Solution Architect (Bank, IT)

2013 / 2014

Activities and Responsibilites:

- Planning, conducting and controlling the system implementation of interexa DMC, a solution to support the regulatory EMIR risk mitigation: regular portfolio reconciliation, timely confirmation, daily valuation and the agreement of dispute processes with counterparties.
- Coordinating the IT implementation as well as necessary process changes in business units.
- Establishing a requirement and fault management with the external software vendor.
- Implementing an effective test management and regelular reconciliation with the test manager.
- Reporting of project progress and risk situation to senior management.
- System environment: DMC, Murex, FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), FpML, Clarity, HP Quality Center, Jira
- Leadership for up to 20 employees and 2 business units.
- Budget responsibility: 7 Mio. €

FRONT ARENA Upgrade (Version 4.2 to 2012.2)

Project Lead & FRONT ARENA Expert (Bank, IT)

2012 / 2013

Activities and Responsibilites:

- Planning, implementing and controlling the FRONT ARENA upgrade from version 4.2 to target 2012.2.
- Conducting a comprehensive cleanup task to reduce migration costs.
- Setting up the configuration management: FRONT ARENA instances and their releases, source code management, delivery of migrated objects and parametrisations, rhythm of database and software updates etc.
- Coordinating the migration process of FRONT ARENA objects.
- Validation and clarification of methodical changes between the releases until final business sign-off.
- Controlling relevant dependancies of the project, e.g. the change of the server platform (HP cluster) and the upgrade of the client hardware and operating system (Windows 7).

- Establishing a requirement and fault management with the software vendor Sungard.
- Implementing an effective test management and regelular reconciliation with the test manager.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
- Leadership for up to 30 employees and 10 business units.
- Budget responsibility: 3 Mio. €

FRONT ARENA Upgrade (Version 2.2 to 2012.1)

Project Lead & FRONT ARENA Expert (Bank, IT)

2011 / 2012

Activities and Responsibilites:

- Planning, implementing and controlling the FRONT ARENA release-upgrade from version 2.2 to target 2012.1.
- Conducting a comprehensive cleanup task to reduce migration costs.
- Setting up the configuration management: FRONT ARENA instances and their releases, source code management, delivery of migrated objects and parametrisations, rhythm of database and software updates etc.
- Coordinating the migration process of FRONT ARENA objects.
- Functional Lead for a comprehensive validation of calculated values in FRONT ARENA with a team of 8 quantitative analysts over 9 months, clarification of the results with a customer committee of experts.
- Controlling relevant dependancies of the project, e.g. the clarification of the governance for FRONT ARENA regards the final sign-off from above 50 business units.
- Establishing a requirement and fault management with the software vendor Sungard.
- Implementing an effective test management and regelular reconciliation with the test manager.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project, HP Quality Center
- Leadership for up to 60 employees and 50 business units.
- Budget responsibility: 19 Mio. €

Project details

Coordination of new product launches for Treasury & Trading

Project Lead & Solution Architect (Bank, IT)

2010 / 2011

Activities and Responsibilites:

IT coordinator in the new product process, responsible for the planning and implementation of product applications from the Trading units and Treasury.

- Analysis of business requirements for the integration of new products in the existing IT landscape.
- Design of the downstream processing of new products in cooperation with the concerned business units.
- Integration of new products in terms of technical changes and revised processes along the whole process-chain.
- Coordination of the technical and business sign-off process as a prerequirement for the approval to start trading.
- Ensure maintainability and efficiency of the implemented solution for line operations.
- Optimising the new product process regarding time-to-market, costs and quality.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Murex, Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Clarity, HP Quality Center
- Leadership for up to 30 employees and 10 business units.
- Budget responsibility: 3 Mio. €

Reorganization of IT for the business unit ETF

Project Lead & Solution Architect (Bank, IT)

2010

Activities and Responsibilites:

Planning, implementing and controlling all the activities to transfer the trading IT for the business unit ETF into IT/Org.

- The general conditions for the organisational transfer of staff, functions and processes have been arranged.
- Definition and fulfillment of documentation guidelines and standards for the complex individual developed software-system of the market maker ETF.
- Handover of the technical ETF infrastructure into the regular operation process of the bank.
- Definition of processes, roles and responsibilities in the new IT organisation unit.
- Planning, realisation and control of all the necessary activities for closing the existing issues from the external auditing.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), individual software ETF Trading & Market Making, Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project

- Leadership for up to 30 employees and 10 business units.
- Budget responsibility: 1 Mio. €

Enhancing & Optimising the ETF Business in FRONT ARENA

Project Lead & Solution Architect (Bank, Capital Markets)

2009 / 2010

Activities and Responsibilites:

Planning, implementing and controlling diverse projects and activities to enhance the trading infrastructure of the business unit ETF.

- Analysis and optimization of business processes along the process-chain.
- Conducting a pre-study for the consolidation of the trading unit ETF with the agency trading.
- Management of inter-divisional implementation projects for new asset classes in ETF and the related NPP processes.
- Coordination of requirements from the ETF issuer.
- Optimisation of Sungard FRONT ARENA for ETF trading.
- Development of an electronic market making platform for trading and quotation at Leading European exchanges and markets.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), individual software ETF Trading & Market Making, Python, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Leadership for up to 40 employees and 10 business units.
- Budget responsibility: 6 Mio. €

Project details

Implementing OTC Interest Rate Derivatives in FRONT ARENA

Project Lead & Solution Architect (Bank, Capital Markets)

2008 / 2009

Activities and Responsibilites:

Planning, implementing and controlling the sub-project FRONT ARENA Valuation for providing the central valuation architecture for structured OTC interest rate derivatives.

- Analysis of the business requirements along the process chain.
- Analysis, design and implementation of the valuation interface for the external pricing library.
- Enhancement of the data-model to capture the instrument-features and derived model- and market-data.
- Implementation of a performance optimized application to calculate Profit and Loss and Greek figures per full-valuation.
- Implementation of a Profit and Loss application based on a Taylor approximation with Greeks.
- Optimisation of computationally intensive valuation processes.
- Implementation of distributed calculations for the model calibration and valuation process (grid-parallelization).
- Definition of the inter-divisional testing and sign-off processes for changes or enhancements in the valuation models.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), QuantLib, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Leadership for up to 20 employees and 10 business units.
- Budget responsibility: 4 Mio. €

Implementing OTC Interest Rate Derivatives in Calypso

Project Lead & Solution Architect (Bank, IT)

2007 / 2008

Activities and Responsibilites:

Planning, implementing and controlling the sub-project Calypso Models for providing the central valuation architecture for structured OTC interest rate derivatives.

- Planning, control and realisation of projects in the Investment Banking area.
- Business Leadership and integration of the project teams, consisting of internal and external staff.
- Development of comprehensive business cases.
- Creation of decision memos taking into account the target criteria of the management.
- Preparation and attendance of project committees and execution of review meetings.
- Close collaboration with customers, specialists and the management board.

Project details

- Responsible for the creation of IT concepts on the basis of business requirements and the user-documentation.
- Handover-process of the project results to operation.
- Design, implementation and development of the external pricing library and its integration in the trading system Calypso.
- Requirement to reach trading book accuracy for complex innovative financial products.
- Reporting of project progress and risk situation to senior management.
- System environment: Calypso, Nordic Analytics, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Leadership for up to 30 employees and 10 business units.
- Budget responsibility: 5 Mio. €

Coordination of new product launches for Treasury & Trading

Project Lead & Solution Architect (Bank, IT)

2007

Activities and Responsibilites:

Planning, implementing and controlling the different NPP requests from Investment Banking to the end, that new financial products will be integrated in the complex IT architecture of the bank.

- Analysis of business requirements for the integration of new products in the existing IT landscape.
- Design of the downstream processing of new products in cooperation with the concerned business units.
- Integration of new products in terms of technical changes and revised processes along the whole process-chain.
- Coordination of the technical and business sign-off process as a prerequirement for the approval to start trading.
- Ensure maintainability and efficiency of the implemented solution for line operations.
- Optimising the new product process regarding time-to-market, costs and quality.
- Reporting of project progress and risk situation to senior management.
- System environment: Kondor+, Murex, Sophis Risque, Java, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Leadership for up to 30 employees and 10 business units.
- Budget responsibility: 4 Mio. €

Project details

Upgrade Trading System & Introducing Portfolio Compliance-checks in Apollo

Project Lead & Solution Architect (Asset Manager, IT)

2006

Activities and Responsibilites:

- Providing new tradable asset classes for the fund management.
- Project Leadership for the release-upgrade of the central trading system Apollo.
- Implementation of automatic portfolio pre-order compliance checks in Apollo.
- System environment: Apollo, Barra, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Functional and disciplinary Leadership of the team.
- Budget responsibility: 1 Mio. €

Implementing OTC Interest Rate & Credit Derivatives in FRONT ARENA

Project Lead & Solution Architect (Bank, Capital Markets)

2005 / 2006

Activities and Responsibilites:

- Establishing the inter-divisional processes, roles and responsibilities for an efficient development of innovative financial products and derivatives.
- Enhancement of the existing process to introduce new products (NPP-process).
- Analysis and definition of appropriate quantitative models and methods for the valuation and risk management of the interest rate and credit derivatives portfolio.
- Development of corresponding hedging strategies together with the derivative traders.
- Implementation of the pricing models and derivative products in SCIFinance ASPEN, C/C++ and Python.
- Implementation of the valuation and risk functions in the trading system FRONT ARENA.
- Definition of the documentation, test and sign-off processes for releases in close cooperation with the business units and IT/Org.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Summit, SCI Finance, Mathematica, Moosmüller & Knauf, Numerix, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Leadership for up to 20 employees and 5 business units.
- Budget responsibility: 3 Mio. €

Project details

Pre-study for OTC Interest Rate & Credit Derivatives in FRONT ARENA

Project Lead & Solution Architect (Bank, IT)

2004

Activities and Responsibilites:

- Conducting the pre-study for OTC Interest Rate & Credit Derivatives:
  - Definition of processes, roles and responsibilities and, as a result of new duties, the need of additional resources in the different business units and IT/Org.
  - Analysis of proper interest rate term-structure-models for the interest rate derivatives portfolio.
  - Analysis of proper credit-risk-models for the credit derivatives portfolio.
  - Analysis and comparison of standard pricing libraries available in the market against the option of proprietary development.
  - Development of a prototype for the integration of external pricing libraries into FRONT ARENA.
  - Planning the implementation project.
- Project Lead for the FRONT ARENA upgrade from version 1.5 to 2.1.
- Reporting of project progress and risk situation to senior management.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Summit, SCI Finance, Mathematica, Moosmüller & Knauf, Numerix, Monis, QuantLib, MBRM, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Leadership for up to 20 employees and 5 business units.
- Budget responsibility: 1 Mio. €

Implementing FRONT ARENA & Setup Line Operations

Project Lead & Solution Architect (Bank, IT)

2003

Activities and Responsibilites:

- Project Lead for implementing Sungard FRONT ARENA.
- Project Lead for the FRONT ARENA upgrade from version 1.3 to 1.5.
- Functional FRONT ARENA support for treasury & trading, risk management and downstreaming business units.
- Implementing Collateral management for derivatives in FRONT ARENA.
- System environment: FRONT ARENA /PRIME (ASQL, AEL, ACM, ADFL), Summit, Moosmüller & Knauf, Python, C/C++, SQL-Databases, ETL-Tools (Middleware), Microsoft Project
- Leadership for up to 20 employees and 5 business units.
- Budget responsibility: 1 Mio. €

Project details

Setup Fixed Income & Securities Finance Trading in FRONT ARENA

FRONT ARENA Consultant (Bank, Capital Markets)

1999 / 2002

Activities and Responsibilites:

- Optimising business processes for the fixed income, swap and derivative trading by:
  - capturing the product types and market usances (bonds, swaps, options, futures, FRA etc.).
  - continuous improvement of valuation, profit & loss and risk calculations.
  - implementing reports and interfaces for traders and downstreaming business units.
- Optimising business processes for the repo & security lending desk by:
  - capturing the product types and market usances (repo, buy/sellback, security lending).
  - continuous improvement of valuation, profit & loss and risk calculations.
  - determining the security and cash positions.
  - creating trade confirmations.
  - handling of manufactured dividends, haircuts and substitutions.
  - collateral management including threshold observation.
  - annual settlement of the repo accounts.
  - introducing the electronic trading platform "Eurex-Repo".
  - implementing reports and interfaces for traders and downstreaming business units.
- Supporting Risk Management in controlling:
  - valuation relevant curves.
  - pricing informations.
  - limit utilisation.
  - risk figures.
  - validity of user access rights
- Supporting Trade Control in:
  - solving valuation issues.
  - creating a trading independant profit & loss.
  - conducting market conformity checks.
  - parametrisation of FRONT ARENA.

- Supporting BackOffice in:
  - creating trade confirmations.
  - conducting control and recouncilation duties.
  - initiating payments and delivering securities.
- Implementing regulatory requirements (Basel 1, MaH).
- Development, test and implementation of a concept for user access rights in FRONT ARENA.
- Archiving trades and profit & loss cutoff in the year-end procedure.
- Support of diverse FRONT ARENA release-upgrade projects (Intas, Atlas, PRIME).
- System environment: FRONT ARENA /INTAS /ATLAS /PRIME (ASQL, AEL, ACM, ADFL), Summit, Moosmüller & Knauf, Python, C/C++, SQL-Databases, ETL-Tools (Middleware)

Trading Firms, Industry and Public Sector

IT Consultant & Trainer

1993 / 1999

Activities and Responsibilites:

- IT Consultant Automotive:
  - Large-scale project MERLIN (More Efficiency through Right Logistic INformations) to develop an integrated production, sales and logistic system.
  - Project to develop a database solution to manage and consolidate cost on an enterprise level including the different international locations of the company.
- DV-Trainer at a Local Government to introduce Microsoft-Office in combination with Siemens ComfoDesk.
- Development of a Windows-based business solution (C/C++ with SQL database) for invoicing and accounting, designed for small and medium sized companies.
- DV-trainer for government-funded vocational retrainings with over 400 training days and workshops:
  - Microsoft Office development
  - Optimising the business with Microsoft Office
  - Project planning with Microsoft Project
  - Visual Basic development
  - Data modelling and normalisation
  - Database development with Microsoft Access
  - SQL
  - PC technology
  - Network technologies