

The Aquantec team leaders.



Jonathan Kelly Chief Technical Officer

Jonathan Kelly

» Architecture and technology determine the quality with which the language of business is translated into software. Anyone who underestimates the complexity of the business will soon be caught up by it. That's why so many historically evolved systems have had to capitulate in the face of ever growing requirements. We avoid this danger by keeping our eyes focused on the whole as well as on the details – at all levels. Architecture – whether we're talking about buildings or software – is more than just constructing. It's about planning things and shaping them with care. The trick is to be complex without being complicated. «

Jonathan Kelly founded Aquantec AG together with Dr. Georg Meyer. He holds a Master of Arts in Computer Science and Management Studies from the University of Cambridge. At Aquantec, he is in charge of software architecture and the design of technical and business components. Since 2001, as software consultant with his own company Capabex GmbH, he has been advising HypoVereinsbank and the UniCredit Group, primarily on issues related to software for interest-rate, equity, and inflation-linked products. Before that he worked for Bayerische Vereinsbank as a financial engineer and trader.

»We understand our customers' concerns. We ourselves had to deal with the very same issues every day when working in the world of finance. Time and again, we came up against the limitations of the software we were using. So we decided to take a step back and get a better look at the whole picture. And with this overarching view, we developed a new software – from scratch. Software that takes the challenges it faces as given. «

Dr. Georg Meyer

» More than ten years in a major bank taught me how laborious it is to work with software that doesn't support me sufficiently. At the same time, I was fascinated by financial and quantitative issues, by the analysis of complex processes and by the precision, transparency, and aesthetics of mathematical methods. It was this combination that inspired me to create a platform that provides all those who use it on a daily basis with the best possible working conditions. A platform that facilitates communication and responds flexibly to new requirements. «

Dr. Georg Meyer is co-founder and CEO of Aquantec AG. A theoretical physicist and financial engineer, he is specialized in the development of financial and quantitative components for portfolio and risk-management software. In this field, he can look back on twelve years of experience with Hypo-Vereinsbank and the UniCredit Group, where as head of Quantitative Development he worked together with Jonathan Kelly to develop the in-house risk-management system. He was also responsible for its evolution into a cross-asset derivative platform and a front-to-back trading system.



Dr. Georg MeyerChief Executive Officer

» We wanted software that met our own high standards and are sure that you are also not prepared to settle for less.

All too often, we ourselves had to look for ways to adapt our business processes to a given system. We wanted a software that adapted to our processes – not vice versa. And one that worked for all asset classes. «

Let us help you raise your performance.





» Aquantec Ocean integrates in a single system the entire spectrum of functionality required to operate in financial markets. You work with a large number of meticulously melded together components that deliver the information you need – flexibly and efficiently. «

aquantec OCEAN

Software for Pricing and Trading, Portfolio and Risk Management

Consistent cross-asset capability

Aquantec Ocean gives you true cross-asset capability over the entire range of its functions – comprehensively and seamlessly, integrated instead of parallel. We enable aggregated risk views and complex simulations across all asset classes.

State-of-the-art models and algorithms

The models and algorithms *Aquantec Ocean* uses make the software reliable and facilitate transparent evaluation. That means security, clarity, and precision for you and your business.

Future-proof architecture and technology

Our architecture and technology are free of the baggage of older systems. Resilience and transparency are ensured by the sophisticated interaction of all system components. Modular structure and agile development make sure that you get exactly what you need.

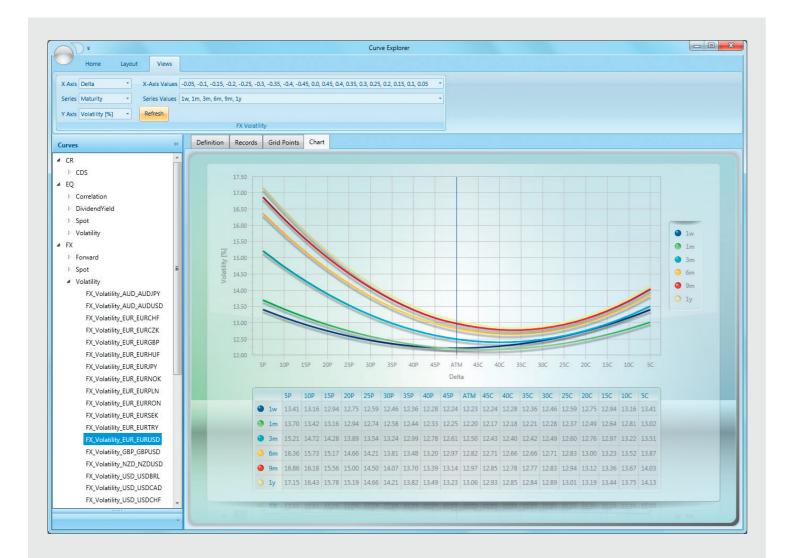
A skilled team of specialists

Aquantec Ocean is the product of an interdisciplinary team of software architects and developers, business analysts and financial mathematicians who understand both the business and the software. They combine expertise, experience, and creativity with a strong focus on the essentials.

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The functional spectrum.



Comprehensive reference and market data

Aquantec Ocean provides you with the information base you need for a consistent market overview. You use generic business abstractions for quoted and derived market data and a framework for the definition and calibration of model parameters that is both flexible and powerful.

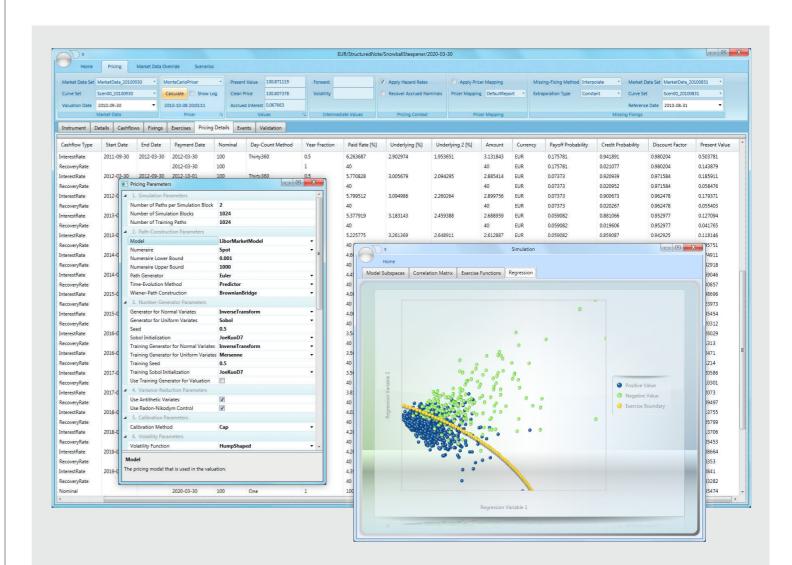
Well-founded application of business conventions

Aquantec Ocean supports all relevant business conventions. The precise generation of payment schedules and a broad coverage of day-count methods as well as other essential market conventions deliver solid data for the assessment of your cashflows.



» One can only grasp the whole if one understands the details. But one must not stop there. One has to identify the underlying structures so as to be able to select the right abstractions. «

Dr. Georg Meyer



Easy entry and maintenance of products and trades

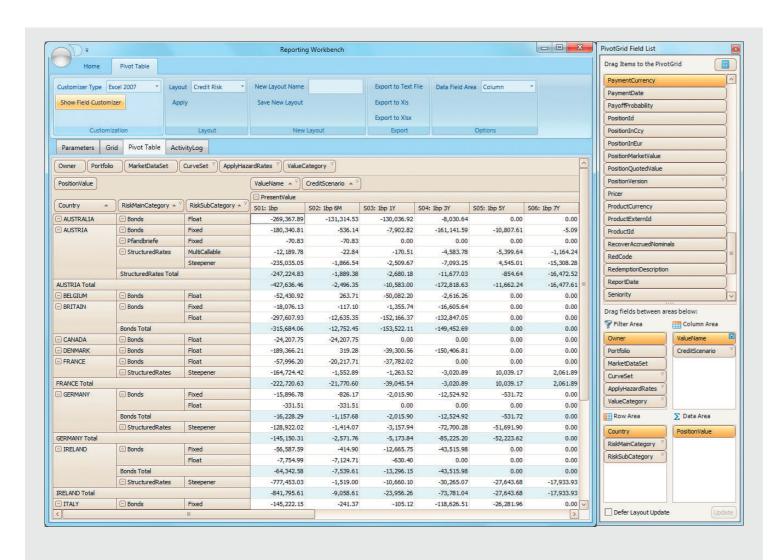
Aquantec Ocean captures your entire product range – from the very simple to the most complex – in one generic data model. Intuitive user interfaces facilitate manual entry. Of course, we also allow you to bulk import your trades.

Reliable valuation

Aquantec Ocean combines tried and tested pricing algorithms with a powerful risk-analysis framework to calculate risk figures. The calculations take issuer and counterparty risks as well as cancelation rights into account for even the most complex of products.

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Flexible simulations

Aquantec Ocean enables you to run simulations with freely adaptable scenarios and complex stress tests. The spectrum of your forecasting capabilities increases. You are not hampered in your risk management by the limitations of your software.

Transparent risk management and reporting

Aquantec Ocean applies a cross-asset philosophy systematically and provides you with reports that meet the most rigorous of regulatory requirements. You use an individually configurable report generator that gives you highly sophisticated integrated risk views encompassing all asset classes.

» To design an architecture that meets the highly complex business requirements of the portfolio and risk-management domain, you have to know just as much about the subject matter as the algorithm developer does about the underlying requirements of the software. The result is a two-way enrichment of mathematical methods and technological expertise, which calls for mutual respect and the ability of both sides to communicate with each other. The same is true for the combination of relational databases and object-oriented programming. That's the strength of our team – as well as our software. «

The best of two worlds forged into a single system.

The foundation: three-stage data-access layer

A data model specified at the conceptual level bridges the gap between object-oriented abstractions and relational structures.

The concept of encapsulation is systematically implemented at all three levels with clearly defined interfaces. This also allows *Aquantec Ocean's* data model to be combined with any database.

The precise specification and technical implementation of core entities ensures the easy integration of new product and market data.

Aquantec Ocean's conceptual data model ensures that the system combines high performance with easy extensibility. The domain-specific logic is built on top of the conceptual model, remaining independent and focused. The entire model is designed to provide true cross-asset capabilities.

The building materials: future-oriented technologies

To achieve its lean and flexible structure, *Aquantec Ocean* leverages the service-oriented Windows Communication Foundation (WCF). All activities can be carried out locally or distributed as needed, enabling an optimal balancing.

By means of suitable configuration, *Aquantec Ocean* can be fully adapted to your processes and embedded into your IT landscape with a minimum of installation effort.

Aquantec Ocean's core business abstractions are reflected in an intuitive user interface. Integration with Office products is built-in. All processes can be perfectly tailored to the users and achieve the best possible performance. Presentation layer, application logic, and data management remain decoupled.

The ability to adhere to security standards is self understood, data encryption and authorization are easy to configure. All standard protocols are supported by *Aquantec Ocean*.

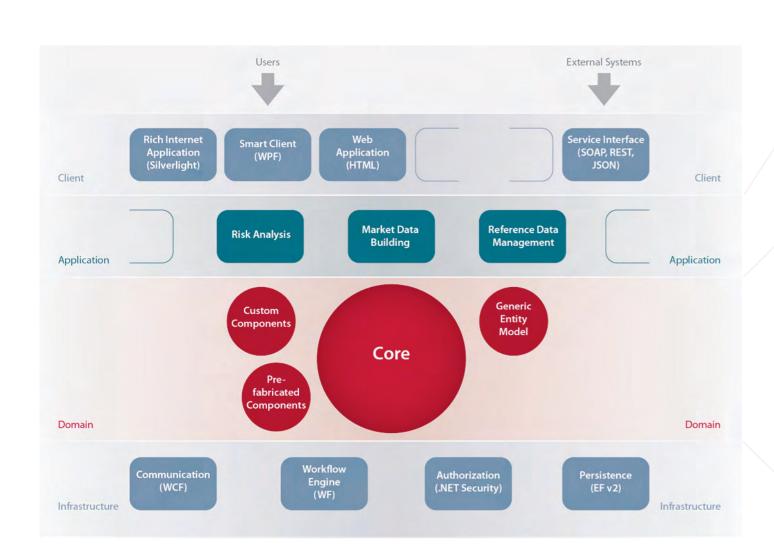
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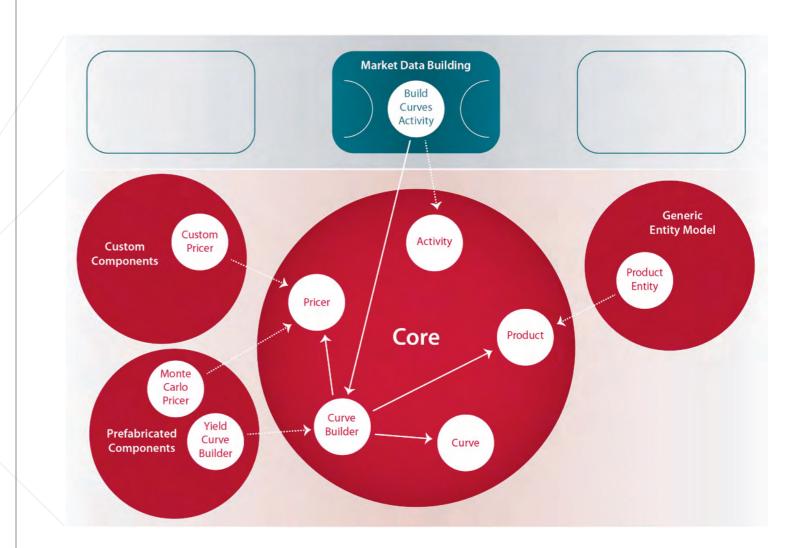
» Perfecting both domain modeling and architecture and combining these two aspects with each other – that's sophisticated communication. «

Jonathan Kelly



Aquantec Ocean is based on a tried and tested layer model. By employing state-of-the-art technology, the software can operate in a wide array of different architectures.

You can operate *Aquantec Ocean* as a client/server architecture, a 3- or 4-tier architecture, or embedded in a service-oriented architecture. The stringent separation of concerns enables numerous combination possibilities with a variety of client and database technologies.



The »Core« of Aquantec Ocean is the result of a filtering and distillation process that took place over many years in which the domain's essential abstractions were identified. These core abstractions are based exclusively on interface definitions that define the individual roles played by the software components.

Aquantec Ocean offers a large number of prefabricated customizable components. This enables a highly dynamic adaptation to specific needs. The generic entity model allows new product types to be introduced in an efficient manner.

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Navigates through risky waters without making waves.

Contact Us



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Partners

Through strategic cooperation with financial and IT service providers, Aquantec gears its product development to current market requirements.



Ithuba Capital AG is a private and independent securities firm, specialized in portfolio management and corporate finance consulting.

www.ithubacapital.com



Microstep Information Technologies AG is a team of experts in a diverse range of disciplines who develop software professionally.

www.microstep-it.com