

F3 SDK Used to Extend Derivatives Functionality in SimCorp Dimension and Meet Ever-Growing Requirements for Advanced Pricing Capabilities

“FINCAD derivatives pricing expertise perfectly complements SimCorp Dimension, allowing us to offer our clients access to timely, accurate and proven pricing for credit and other more complex derivatives seamlessly from their existing SimCorp Dimension solutions.”

Søren G.A. Pedersen, Vice President of Partner Development, SimCorp



WHY DID SIMCORP APPROACH FINCAD?

Since 1971, SimCorp has been providing investment and portfolio management software services to the world’s leading investment managers, asset managers, fund managers, fund administrators, pension funds, insurance funds, and wealth managers. SimCorp’s software, SimCorp Dimension, is the world’s most advanced front-to-back seamless processing system for this industry.

SimCorp has constantly expanded the derivatives coverage of SimCorp Dimension adding credit derivatives, as well as a range of instruments implemented with the system’s XpressInstruments framework. This module enables users to handle exotic derivatives and structured products and SimCorp recognized that customers would benefit greatly from integrating this with a comprehensive and flexible financial analytics library. FINCAD’s reputation for accurate, reliable, industry standard analytics made it the clearly preferred choice.

WHAT DID SIMCORP NEED?

The challenge faced by SimCorp was one faced by many software vendors: how to expand the derivatives coverage of its system without negatively impacting the infrastructure used by existing functionality or affecting customers adversely. Specifically, SimCorp was looking for the following:

- 1) An analytics library that would meet its financial and technical requirements, both now and in the future.

- 2) Technology that would work with the generic trade representation language* that was already used in SimCorp Dimension’s XpressInstruments framework.
- 3) A trustworthy technology partner, with an excellent reputation for supplying accurate, reliable derivatives analytics.

* The generic trade representation language used in SimCorp Dimension is delivered by Lexifi SAS (www.lexifi.com)

WHAT SOLUTION DID FINCAD PROVIDE TO SIMCORP?

FINCAD addressed all of SimCorp’s technical requirements with FINCAD’s F3 technology. The result was a three-part solution:

- 1) FINCAD Analytics was incorporated into SimCorp Dimension to expand its derivatives functionality.
- 2) FINCAD built a connector between the generic trade representation language used by SimCorp Dimension and F3.
- 3) A long-term development partnership was formed to both solve SimCorp’s current needs and respond to changing business requirements in the future.

FINCAD ANALYTICS LIBRARY

The first part of the solution provided to SimCorp was FINCAD’s comprehensive, cross-asset class

derivatives analytics library. While SimCorp initially focused on expanding the credit coverage in SimCorp Dimension, SimCorp also planned from the outset to utilize F3 SDK’s flexible architecture to value more complex and structured products built in XpressInstruments. This module exploits F3 SDK’s relatively easy-to-use interface, making F3 SDK valuations for the expanded range of derivatives an intrinsic part of what XpressInstruments delivers to the user.

Rather than treating each derivative as something entirely discrete, F3 SDK operates at a highly granular level. Small building blocks can be connected together through a simple user interface, making it possible to model and price virtually any kind of trade. In addition to calculating value, F3 SDK allows calculation of the first order risk for all market data inputs and dependent variables to which the trade or portfolio is exposed. Being able to calculate this risk means SimCorp can provide its customers with the advanced risk analytics needed in today’s volatile markets.

GENERIC TRADE REPRESENTATION LANGUAGE CONNECTOR

The FINCAD Professional Services team also provided a custom solution to SimCorp by building a connector to the generic trade representation language used in the SimCorp Dimension XpressInstruments framework for creating complex instruments. The connector passes information from XpressInstruments to the FINCAD Analytics engine to obtain valuation and risk figures for the trade. This frees the user to concentrate on the business

Case Study *continued*

solution provided in XpressInstruments without having to be concerned with the details of F3 SDK. It also means that SimCorp has been able to further leverage its initial investment in the generic trade representation language. The technology used to build the connector is robust so it will adapt and expand as SimCorp's technology needs change.

LONG-TERM DEVELOPMENT PARTNER

FINCAD has been providing finance professionals with the software and services that support the valuation and risk management of financial securities and derivatives since 1990. FINCAD's reputation for accurate, reliable analytics and their leading partnership program, the FINCAD Alliance Program, meant that SimCorp could trust that FINCAD's solution would satisfy its business requirements. SimCorp recognized FINCAD as a good candidate for a long-term development partnership after reviewing FINCAD's analytics and technology roadmap, as well as assessing the qualities of the company itself. SimCorp identified that the two companies were moving in the same direction and felt very comfortable that the cultures could work together effectively – a confidence which proved well placed when FINCAD and SimCorp used integrated project teams to incorporate F3 SDK into SimCorp Dimension.

WHAT BENEFITS DID SIMCORP RECEIVE FROM USING F3 SDK?

By integrating F3 SDK into SimCorp Dimension, SimCorp could expand its derivatives coverage quickly in order to meet the constantly changing needs of its customers.

MEET CUSTOMERS' CHANGING NEEDS — QUICKLY

The flexibility and powerful nature of F3 SDK made integrating FINCAD Analytics easier and allowed the derivatives offering in SimCorp Dimension to expand valuation and risk measurements for sophisticated derivatives faster than would developing this functionality in-house or using other technology solutions. Using F3 SDK meant that SimCorp could focus on its core business. The object-oriented architecture of the technology and its ability to support multithreaded and grid processing meant that F3 SDK could deliver the performance and scalability required by SimCorp's customers.

Using the technology and analytics behind F3 SDK within SimCorp Dimension meant that SimCorp's customers got seamless access to timely, accurate and proven pricing for credit and other more complex derivatives. Customers could avoid the excessive data manipulation task often required to price such positions and as a result reduce operational risk while simultaneously improving efficiency.

As SimCorp's customers demand more complex derivatives coverage, by using F3 SDK, SimCorp Dimension can be expanded to meet these needs without any further changes to the integration that exists between the two products.

LEARN MORE ABOUT SIMCORP

SimCorp is the originator and supplier of SimCorp Dimension, an internationally recognized, comprehensive software solution for professional investment managers. Completely modular, the enterprise solution supports all the elements of the investment management process, from front-to-back, all integrated on a single platform. In use by more than 160 investment management businesses, insurers, fund administrators and wealth managers around the world, SimCorp Dimension provides a basis for these organisations to mitigate many kinds of risks, control and reduce costs and to grow their businesses.

SimCorp Dimension covers conventional asset classes and highly advanced derivatives across virtually all asset management processes, in a single system. Many of these instruments require theoretical pricing best provided by specialists in the field, so FINCAD's comprehensive cross-asset analytics library is a natural fit to supplement and complement the functionality available within SimCorp Dimension itself.

SimCorp is headquartered in Denmark and has 20 subsidiaries on four continents. SimCorp Dimension is SimCorp's only product and of the company's 1,100 employees, over 400 continue to develop and enhance the system that is released in a new version every six months.

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The logo for FINCAD, with 'FIN' in blue and 'CAD' in red, followed by a registered trademark symbol.