

Algorithmica Research launches CVA & PFE application for counterparty credit risk

ARMS CCR – combines comprehensive analytics with technical innovation for maximum performance

Stockholm, Sweden – September 29, 2011 – Algorithmica Research AB, a leading provider of solutions for advanced risk management, quantitative analysis and enterprise-wide management of historical data, today announced the release of the ARMS CCR module. The ARMS CCR module is a high-performance simulation based counterparty credit risk application designed to address the dual business requirements of running global enterprise-wide consolidation and intra-day pre-deal limit checks. Market standard netting agreements and simulation of collateral is fully supported. The ARMS CCR module is developed to run on standard software and optimized to take advantage of the latest advances in hardware technology. The complete solution can be installed and maintained at a fraction of the typical cost, especially when used together with the ARMS Market Risk application.

One major component of a successful forward looking valuation framework is having a flexible, yet robust Economic Scenario Generator engine. The model combine user-defined macro views with automated market implied calibrations. Other features include::

- Multi-asset simulation methodology for risk-neutral or real-world simulation
- Risk factors evolved using a semi-parametric model that correctly captures statistical properties of financial time-series such as tail heaviness and volatility clustering
- Methodology also provides proper cross risk factor correlations with respect to the historical data. This is important since analysis has shown that correlation is as volatile as volatilities.

One of the major challenges in delivering an application for counterparty credit risk is computational performance. Generation of thousands of economic scenarios and processing a large portfolio over sufficiently granular intervals easily leads to hundreds of billions of unique position valuations. Handling of such requirements include:

- Leveraging techniques from the field of high performance computing, such as vectorization and prefetching, ARMS CCR is able to make efficient use of modern multicore and multiprocessor hardware, resulting in outstanding performance.
- Simulation and pricing relies heavily on the Intel Math Kernel library (MKL) which is a highly optimized library of math routines for applications that require maximum performance. MKL math functions used in ARMS CCR includes BLAS, random number generation and vector math.

“We have developed ARMS CCR to address both regulatory demands in the enterprise-wide context as well as for supporting credit trading by dedicated risk management functions. The system is truly scalable and will be used as the technical foundation for all future versions of ARMS, both client-side as well as server-side.” said Niclas Holm, CEO.

About Algorithmica Research

Algorithmica Research is a leading provider of solutions for advanced risk management, quantitative analysis and enterprise-wide management of historical data. The ARMS risk management system is based on Quantlab, Algorithmica’s award winning software development platform for quantitative financial analysis. In addition, Algorithmica provides solutions for enterprise-wide management of historical data including time-series market data, instrument data, corporate actions and calculated data.

Founded in 1994, Algorithmica is privately held, and its head office is in Stockholm, Sweden.

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