

## Key Benefits

- Accelerated derivative calculations distributed over grid
- Schedule reports using Microsoft HPC Job Scheduler
- Use Microsoft HPC Job Scheduler to grid Excel-based pricing or risk
- Comprehensive model library
- A full-range of risk analysis and reporting
- Pre-trade price discovery
- Scenario analysis
- Deal portability with XML

## Asset-Class Modules

- Fixed income
- Inflation
- Credit
- Equity
- Foreign exchange
- Commodities
- Hybrids

## Recommended Users

- Traders
- Risk Managers
- Quants/Structurers
- Portfolio Managers
- Asset Liability Managers
- Actuaries
- CIOs/CTOs

## Trader Apps in Excel

- Credit Trader
- FX Trader
- Rates Trader
- Bond Trader

## Insurance Apps in Excel

- Variable and Fixed Annuity Structuring and Pricing
- Advanced Modeling Capabilities
- Economic Scenario Generation
- Portfolio Optimization
- Hedging Capabilities

## The most powerful, highly scalable solution for the pricing, valuation, and risk management of today's most complex derivative portfolios

Numerix CrossAsset XL users can leverage the features of the Microsoft<sup>®</sup> Windows<sup>®</sup> High Performance Computing (HPC) Server 2008 and HPC Services for Excel Solution, gaining the most powerful grid computing capabilities industry-wide. Together, Numerix and Microsoft HPC provide users with accelerated derivative calculations, pricing, risk and advanced modeling capabilities—in addition to a more efficient, controlled environment for traders, structurers, auditors, IT, ALM and risk managers of complex derivative portfolios.

When coupled with the value of an integrated HPC solution, Numerix CrossAsset XL enables improved systems productivity, interoperability and full transparency for deal definitions, along with accelerated real-time valuations and rapid unified risk calculations for complex derivatives portfolios.

## Key Features

- Full transparency for deal definitions and valuations
- Comprehensive risk management capabilities, including VaR, stress testing, scenario analysis, MTM, the Greeks, and bespoke risk reports
- Consistent risk calculations for both hedges and underlying assets
- Advanced deal-structuring capabilities for any new instrument type
- Accelerated real-time calculations with grid computing capabilities
- Running multiple instances of Excel spreadsheets on the HPC Cluster
- Running and distributing Excel-based computations for an entire portfolio

EquityKOSwap			
Trade Input			
Deal Number	Trade abc	Book	Book A
Counterparty	Bank X Y Z	Trader	Trader A
Comment	Comment here		
Deal Definition			
DealID	EquityKOSwap	Fixed Basis	30/360
Equity	Siemens	Fund Freq	3m
Currency	EUR	Funding Convention	CONV.EUR.EURIBOR
Position	Buy	Funding Basis	ACT/360
Notional	400,000,000.00	Business Center	Target
Start Date	13-Oct-2008	Premium	
Swap Maturity	10Y	Fixed	
End Date	15-Oct-2018	Barrier	
Coupon Freq	6m	Multiplier	
Fixed Convention	CONV.EUR.SWAP	Equity Fixings	
Equity Fixing Lag	2bd	Funding Index Fixings	
Risk Inputs			
IR Delta Shift	0.0100%		
Model Selection			
Pricing Model	EQUITYKOSWAP.HYMODEL	Quality	U
Valuation Date	TODAY	Numerical Method	ForwardMC
Valuation and Risk			
Swap Price	5,440,118.801	IR Delta Report	EQUITYKOSWAP.IRRISK
EQ Delta	252,945.63	Flat IR Delta	0.00
EQ Gamma	(505,891.26)	Flat IR Gamma	(64,041.21)
Hyperlinks		Skip Risk Reports	
Deal Object	<a href="#">x_D_EquityKOSwap_Deal_Object</a>	EQGreeks	FALSE
Data	<a href="#">Nx_D_EquityKOSwap_Data</a>	IRRisk	FALSE
Events	<a href="#">Nx_D_EquityKOSwap_Events</a>	IRRiskFlat	FALSE
Indices	<a href="#">Nx_D_EquityKOSwap_Indices</a>		
Pricers	<a href="#">Nx_D_EquityKOSwap_Pricers</a>		

Get accelerated real time calculations and full transparency for deal definitions and valuations.

## All the Modeling Tools You'll Ever Need—Even for Hybrids

The Numerix model library is widely viewed as the market standard for valuing complex derivatives, validated by years of real-world use and noted for its speed and accuracy. No other independent institution provides a wider selection of models and methods spanning all major asset classes—forming the foundation for our unique hybrid framework.

## Enhanced Deal Portability with Numerix XML

Numerix CrossAsset users can export the deal definition and pricing inputs for any trade into a Numerix XML file that is both machine- and human-readable. Through the common language of Numerix XML, the deal can be easily archived or imported to other Numerix-powered solutions.

## Microsoft Windows HPC Server 2008

Windows HPC Server 2008 brings the value of an integrated HPC solution and a productive development environment to customers for whom HPC has been out of reach in the past. Windows HPC Server 2008 helps enable organizations to:

- Improve productivity of systems administration and cluster interoperability by dramatically simplifying the overall deployment, administration, and management over the entire system lifetime, while ensuring interoperability with existing systems infrastructure.
- Rapidly develop HPC applications using Microsoft Visual Studio®, which provides a comprehensive parallel programming environment.
- Seamlessly scale from workstation to cluster by allowing end users to harness the power of distributed computing through a familiar Windows-based desktop environment without requiring specialized skills or training.

## Microsoft HPC Scheduler

The Windows HPC Server 2008 Job Scheduler helps enable the simple integration of an institution's clustered compute nodes. Users can take advantage of the HPC grid technology, allowing scaling, shared compute resources, job isolation, auditing/accounting support, resource management and ultimately calculation speed-up.

## Microsoft in Financial Services

Microsoft is committed to providing the best platform for Financial Services from front-to-back office—working with its partners to provide technology solutions for every area of the industry. Microsoft is making a significant, long-term investment in technical computing and is engaging with and convening the technical computing community through its new site [www.modelingtheworld.com](http://www.modelingtheworld.com). Microsoft's solutions for Financial Services help clients increase revenue while reducing operational costs. For more information, visit: [www.microsoft.com/industry/financialservices/default.aspx](http://www.microsoft.com/industry/financialservices/default.aspx).

“Through collaboration with Numerix, Microsoft is extending the reach of technical computing even further for financial institutions and insurance companies. Together, we are helping trading and risk operations and asset liability managers achieve more timely, efficient and advanced valuation and risk management for the industry's most complex derivatives...”

—Ben Narey, Managing Director Banking & Capital Markets, Microsoft Financial Services

## Risk Analysis Capabilities

- Shift/ Zero-rate shift bumps
- Credit default bumps
- Yield risk
- Credit spread risk/ Credit recovery
- Jump-to-default
- Index hedge reports
- Cumulative distribution function
- Value at Risk (VaR)
- Volatility risk
- Spot-rate sensitivities
- Equity Greeks
- FX ladder report

## Quantitative Expertise

Numerix's team of quantitative analysts and financial engineers consists of over 60 PhDs in math and science, on the same scale as some of the world's largest financial institutions.

## About Numerix

Numerix is the leading provider of cross-asset pricing and risk solutions for derivatives and structured products. Since its inception in 1996, over 700 clients and 50 partners across more than 25 countries have come to rely on Numerix analytics for speed and accuracy in valuing and managing the most sophisticated financial instruments. With offices in New York, London, Tokyo, Hong Kong, Singapore and Dubai, Numerix brings together unparalleled expertise across all asset classes and engineering disciplines.

For more information, contact:  
[sales@numerix.com](mailto:sales@numerix.com)

New York | London | Tokyo | Hong Kong | Singapore | Dubai

[www.numerix.com](http://www.numerix.com)