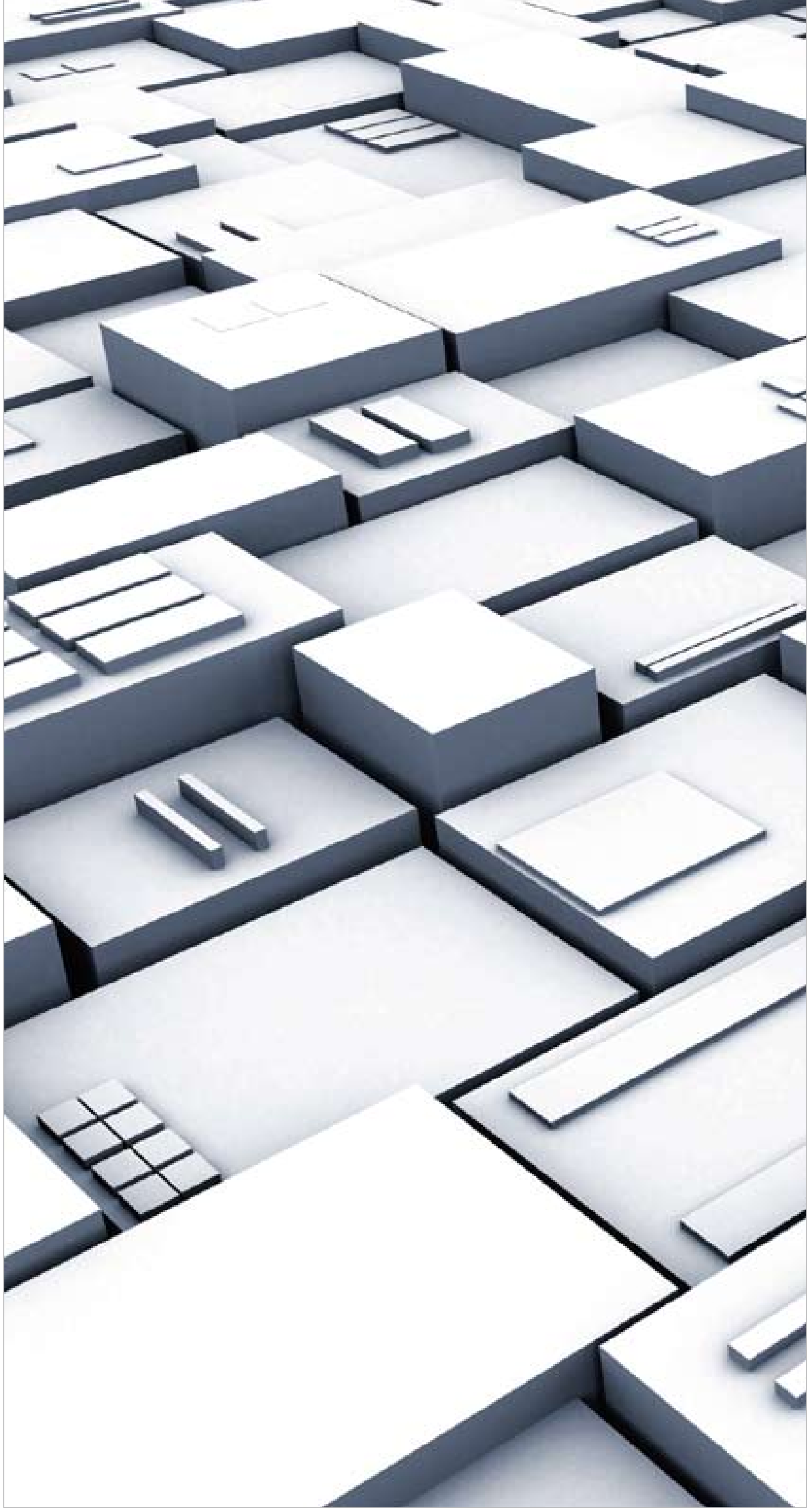

F3 SDK

A next-generation financial analytics library that you can embed into your applications.

- Highly flexible design – Separates the model and market data, trade description, and valuation method – giving you full control over each element and how they are combined
- Comprehensive risk – for every model, calculation method, trade or portfolio of trades

F3 SDK - FAST. FLEXIBLE. FULL RISK.

ULTIMATE FLEXIBILITY

Object Oriented Architecture* – Allows you to price anything from the simplest instrument to the most complex structures

- Use any combination of model, trade, and calculation method
- Use existing objects or create your own by assembling smaller components into larger objects that can be used again and again
    - Allows you to value deals with simple or custom pay-offs*
    - Create your own date conventions and holiday calendars
- Market data, curves and calibrated models can be used and shared between calculations by the same user as objects

COMPREHENSIVE RISK

Every exposure to every input is always available – for every trade/portfolio, model, and calculation method

All first order risk is provided*:

- Present value of one basis point (PV01)
- Equivalent notional value
- Partial derivative of the value of the trade with respect to the market data quote

Risk values are the analytical result – no bumping or approximations have been made

MarketData				Exposures			Further Description	
Name	Type	Maturity	Value	Currency	Amount	Type	Maturity	Type
USD	Rate	O/N	0.03	USD	-5.6E-06	PVBP Delta	O/N	CashDepo
USD	Rate	O/N	0.03	USD	-0.05635	<RawValueExposure>	O/N	CashDepo
USD	Rate	O/N	0.03	USD	-20.2878	EquivalentNotional	O/N	CashDepo
USD	Rate	T/N	0.0301	USD	-5.6E-06	PVBP Delta	T/N	CashDepo
USD	Rate	T/N	0.0301	USD	-0.05635	<RawValueExposure>	T/N	CashDepo
USD	Rate	T/N	0.0301	USD	-20.2895	EquivalentNotional	T/N	CashDepo
USD	Rate	1m	0.03	USD	0	PVBP Delta	1m	CashDepo
USD	Rate	1m	0.03	USD	0	<RawValueExposure>	1m	CashDepo
USD	Rate	1m	0.03	USD	0	EquivalentNotional	1m	CashDepo
USD	Rate	3m	0.029	USD	0.001566	PVBP Delta	3m	CashDepo
USD	Rate	3m	0.029	USD	15.65958	<RawValueExposure>	3m	CashDepo
USD	Rate	3m	0.029	USD	62.41453	EquivalentNotional	3m	CashDepo
USD	Rate	6m	0.0285	USD	0.004775	PVBP Delta	6m	CashDepo
USD	Rate	6m	0.0285	USD	47.74574	<RawValueExposure>	6m	CashDepo
USD	Rate	6m	0.0285	USD	96.34074	EquivalentNotional	6m	CashDepo
Asset	AssetPrices	2b	100	USD	0.291848	<RawValueExposure>	2b	EquityPrice
Asset	AssetPrices	2b	465	USD	0.322219	<RawValueExposure>	2b	EquityPrice
Asset	BlackVolatilities	0b	0.25	USD	0	InterpolationMaturityPoint	0b	DatedValue
Asset	BlackVolatilities	1m	0.25	USD	13.12788	InterpolationMaturityPoint	1m	DatedValue
Asset	BlackVolatilities	6m	0.25	USD	41.93629	InterpolationMaturityPoint	6m	DatedValue

Example of a Risk Report - The sensitivity of the trade to every piece of market data that affects the valuation is always available. This gives you the information you need to make informed risk management decisions.

IF YOU CAN MEASURE RISK

YOU CAN MANAGE IT

EASY TO INTEGRATE

- You can map your trade representation to F3 SDK – or we can help you do it
- Allows you to take any term sheet and construct a representation of it in F3 SDK without any programming
- Provides the ability to rapidly integrate F3 SDK into your environment
- Multi-platform support: objects, trades, and models defined on one platform can be re-used on any other supported platform running the same version of F3 SDK
- Simple, lightweight API which is the same on all supported platforms
- No trade-specific function calls
- Can work with any architecture, including a Service-Oriented Architecture (SOA)

ValueProduct	
Model	BlackScholesModel7
Product	EuropeanOption
ValuationMethod	DefaultClosedForm
Requests	Value

A simple function call gives you full control over what to value, how to value it, and the outputs you want to see

Multi-platform support

Platform	Programming Languages
Windows®	C, C++, Java & C#
Linux®	C++ & Java
Solaris	C++ & Java

TRANSPARENT

- Call logging – Records all function calls to the library. Can be replayed to re-create and diagnose
  - Saves implementation time and makes de-bugging faster and easier
  - Provides audit-ability, transparency and control
- Open analytics platform – full documentation, including comprehensive math documents, User Guide, and academic references
- The library is self-describing - so you can query the library and view a list and the properties of all objects

FAST AND SCALABLE

Faster results for calculation-intensive methods and trades, and faster results for portfolio calculations

- Grid-enabled: Available for all Monte Carlo simulations
- Multi-threaded: Distribute calculations over a number of processing units within multiple computers
- Multi-core: Distribute calculations over a number of processing units within a single computer

Stateful, Object Oriented design*. F3 SDK caches the results of a calculation for use the next time it is required. Example: if a calibrated Heston model is required as input to multiple valuations, that calibration will be performed once, then the calibrated model object is cached and re-used rather than recalculated for greater efficiency

* Patent pending

FINCAD: The Industry Standard for Financial Analytics

Since 1990 FINCAD has been a trusted partner of many of the world's leading financial organizations and financial software vendors in providing software and services that support the valuation and risk management of financial securities and derivatives. Throughout that time we have remained focused on delivering value to customers through product and service excellence.

FINCAD's industry standard analytics are used by more than 35,000 professionals in over 80 countries. FINCAD clients include auditors, banks, hedge funds, corporate treasuries, asset management firms and governments. The widespread use of our technology is testimony to FINCAD's industry leadership across multiple asset classes. Over 70 FINCAD Alliance Partners embed FINCAD analytics within their solutions.

CONTACT:

Corporate Headquarters
Central City, Suite 1750
13450 102nd Avenue
Surrey, BC V3T 5X3
Canada

EMEA Sales & Client Service Center
Block 4, Blackrock Business Park
Carysfort Avenue, Blackrock
Co Dublin, Ireland

USA/Canada 1.800.304.0702
Europe 00.800.304.07020
London +44.20.7495.3334
Dublin +353.1.400.3100
Elsewhere +1.604.957.1200
Fax +1.604.957.1201
Email info@fincad.com
www.fincad.com

FINCAD®

FC 2010 04 039