Training Agenda

Structuring and Pricing Interest Rate, Cross Currency, Equity, Foreign Exchange, EQ Baskets, and FX Basket Derivatives Using Numerix CrossAsset XL

Day 1

8:30-9:00	*Coffee and breakfast*
9:00–9:15	Introduction to Numerix products and overview of system architecture
9:15–10:00	Overview of Numerix Template Library (Solutions) Understanding the structure of solutions and walk through examples Modifying solutions to accommodate optional features
10:00 - 10:15	*Coffee Break*
10:15–10:30	Defining and pricing a deal using the Solutions Wizard
10:30-12:00	Introduction to Numerix Object Structure and functional interface • Static and Market Data Objects • Market Data Objects: Stripping the Yield curve from market data instruments • Other EQ/FX related curve constructions • Pricing vanilla deals using analytics
12:00–1:00	*Lunch break*
1:00–3:00	• Constructing calibration instruments • Volatility surfaces and volatility cubes • Various ways to construct models and calibrate them to instruments • Evaluating model parameters by calibrating them to Swaptions and Caps
3:00 - 3:15	*Coffee Break*
3:15–5:15	Structuring of exotic deals ***In depth understanding of deal structuring and pricing in Numerix: Step by step structuring and pricing a Capped Floater (stand alone)*** • Defining Events, indices and fixing history • Defining the payoff script for the deal • Line by line coding of Numerix scripts • Putting everything together–pricing and valuation of the deal • Quality Study and Numerix Scenario tools • Break–even analysis: determining the fair spread – the Solver object • Risk analysis and risk reports
5:30-6:00	Q&A

Day 2

8:30-9:00	*Coffee and breakfast*
9:00–9:15	Review of day one materials
9:15–10:00	**Pricing a Bermudan Callable Inverse Floater Swap** • Setting up Coupon/Funding Step-ups and calculating Exercise Probabilities • Viewing model calibration instruments, cash flows, exercise probabilities Risk reports • Walk through of various sample IR exotic deal solutions
10:00–10:15	*Coffee Break*
10:15–12:00	Cross Currency models ***Structuring and Pricing Cross Currency deal: Bermudan callable CMS Spread Deals*** • Setting up Notional/Coupon/funding step-ups • Risk analysis (generating exercise probabilities) and risk reports • Walk through of various sample CC exotic deal solutions • Creating portfolio of Exotic trades in Excel: Introduction to Solutions 2
12:00–1:00	*Lunch Break*
1:00–3:00	• Setting up models for EQ/FX deals • Constructing Equity Market Data objects: Dividend Curves, EQ vols. • FX Spot and FX vol • Setting up EQ/FX instruments • Setting up EQ and FX models and calibrate them to corresponding market instruments ***Deal structuring, valuation and risk reports for exotic EQ/FX deals*** • Volatility smoothing • Walk through sample EQ deals in Numerix
3:00–3:15	*Coffee Break*
3:15-4:15	***Structure, price and run risk reports for a basket of EQ*** • EQ Basket Construction: using array indices • Defining the payoff for basket deals: defining arrays in script • Setting up EQ basket models • Generating risk reports for Basket deals • ***Case Study: Valuation of Best of N Assets in a Basket of Equities*** • ***Quick overview of valuation of Mountain Range deals***
4:15-5:30	***Structure, price and run risk reports for a basket of FX*** Walk through of sample FX basket solutions ***Case Study: Valuation of Worst of/Best of FX Basket Deals***
5:30-6:00	Q&A session