Lombard Risk

Managing Collateralised Trading. Enabling Regulatory Compliance.

Oberon®

Your Complete Trade Capture and Valuation Solution

Global Trade Capture, Valuation and Risk Management

Trade With Confidence. Transact With Accuracy.

For financial institutions operating in today's volatile markets, exposure to risk is a constantly evolving threat. Tradable instrument diversity and global regulatory compliance requirements are constantly in a state of flux. Organisations need access to a fast and accurate trading, valuation and risk management system to process trades more efficiently, manage ongoing risk exposure more effectively and have the ability to react quickly to sudden market shifts.

Lombard Risk provides Oberon®, a proven and reliable enterprise-wide global solution, specifically designed to meet the business need of managing the exposure to a greater range of risks than ever before. Oberon® is a complete front-to-back trade processing, valuation and risk management system that provides a complete consolidated view of risk management, covering a wide range of asset classes.

Improve the consistency and efficiency of your systems and processes for controlling risk, today. Oberon® can help you to trade with confidence and transact with accuracy.

Your Complete Trade Processing, Valuation & Risk Management Solution

Overview

Oberon® is an integrated multi-currency system for effective trade processing, valuation and risk management of interest rate and inflation derivatives, FX, money market and fixed income portfolios. The solution covers the entire deal lifecycle from pricing to deal capture and valuation. Oberon® also includes optimised analytics and benchmarking, complete management reporting and ISDA compliant documentation.

Effective Management Of The Entire Deal Lifecycle

Pricing

Allows trades to be captured quickly and efficiently - either manually from within Oberon® or automatically through Oberon®'s programmable interface.

Deal Capture

Able to deal with multiple users and very large trade volumes. Oberon® is currently installed at both small size financial institutions and large banks.

Deal Maintenance

Offers a range of tools for managing deals through time (including the ability to monitor fixings, option exercise, etc). All trades can be unwound, and exchange traded deals and bond deals can be closed-out using a set of user-definable rules.

Risk Management

Sophisticated VaR reporting, sensitivity and scenario analyses with full reporting of Greeks. Ability to apply different market closes to different books/funds, and rollback system/market data to a defined point in the past.

Confirmations

Oberon® can produce confirmations for all trades. Allows the progress of the confirmation process (confirm sent, received and matched) to be monitored and reported upon.

Solutions Highlights

User-Friendly

Simple and intuitive interface allows you to execute daily trade processes quickly and efficiently. Oberon® is easy to implement, easy to learn, and requires minimal ongoing maintenance.

Scalable

Able to deal with multiple users and very large trade volumes. Oberon® is currently installed at both small and large financial service providers and banks.

Unified

Provides a consolidated view across trading and risk management, enabling users to trade and monitor risk efficiently across asset classes.

Broad Product Coverage

Deals with a wide range of products. Support includes: fixed income, inflation derivatives, interest rate derivatives, money market, exchange traded futures and options and FX / FX options.

Ongoing Enhancement

Regular updates provide functionality for new products as soon as they enter the markets. Please contact us for a full list of instruments covered.

Powerful Analytics

Ability to deliver optimised analytics for benchmarking, risk models and analysis in response to trade data or market events.

Powerful Analytics and Reporting Capabilities

Transparent Portfolio Analysis

Oberon® includes a wide range of powerful portfolio analytics, capable of supporting many different pricing models and risk management methods. Our analytics are used as benchmarks by many customers. We support a variety of option pricing models:

- Black-76
- Binomial Black-Scholes with Richardson
- Extrapolation
- Cox Ross Rubinstein
- Hull-White
- Garman-Kohlhagen (Spot and Forward)

Valuable VaR Analytics

The Oberon® solution includes a VaR module called FirmRisk VaR that is designed to allow VaR to be managed proactively by providing tools to identify trades, sub-portfolios and/or risk factors making large contributions to VaR. Six VaR calculation methodologies are available to allow you to adapt your reporting as market and/or regulatory pressures dictate including:

- Extreme Value Theory (EVT)
- Variance-CoVariance (VCV)
- Historic simulation
- Monte Carlo simulation
- Hybrid Monte Carlo
- Hybrid Historic

There are powerful query and reporting capabilities available, drawing on results and intermediate values stored in a relational database. Additionally, trades can be included from third party systems if required. Full 'drill-down' ability to the individual trade level is also provided.

FirmRisk VAR meets external regulatory requirements on internal models as required by the European Capital Adequacy Directive and the Bank of International Settlements.

Configurable Management Reporting

Oberon® provides a wide range of reports, and allows users to customise individual reports as required. New reports can be constructed with ease, including event driven reports that respond to trade or market data events. All relevant data can be extracted through the Oberon® programmable interface. All Greeks are available either by trade or aggregated by user-definable criteria. Oberon®'s operational and risk reports include the following:

- P&L and Accrual reports
- Interest risk reports showing Greeks by time bucket / futures dates
- FX risk reports showing sensitivities to movements in FX rate
- Sensitivity to changes in the yield curve input data, forward FX rates or volatility surfaces
- Payments, fixing and option expiry diaries, and others

Complete Market Data Management

The Market Data module allows you to set up and maintain a range of price and rate data (all of which can be live fed), including:

- Deposit rates, FRA rates, swap rates, and bond spreads for yield curve construction
- Zero Coupon inflation swap rates
- Option volatilities
- Bond issue prices or yields
- Market and closing prices for futures and options
- Historical reference rate data
- Spot FX rates, Forward FX rates and Forward FX points

Oberon supports a number of methods for yield curve calculation, including a B-spline model that allows the user a choice between the degree of smoothness of the curve and the accuracy of fit to input prices. This allows a user to choose both a general trade-off parameter between curve smoothness and input price accuracy, as well as specific weights to allow liquid input points to be weighted more heavily that illiquid points.

Yield curves can also be set up and defined. Oberon® supports many different curve types, including but not limited to:

- IBOR
- Treasury
- Secondary
- MUNI
- Inflation

Extensive Volatility Management Functionality

The Market data module also provides tools for managing option volatilities:

- Enter term structures of forward volatilities or par volatilities, and perform transformations between them
- Enter at-the-money volatilities for underlying rate, or bond prices and yields
- Allows multiple volatility grids for the same instrument type, to reflect the volatilities of different markets
- The volatility grid for different instruments can be specified

Oberon® will also perform transformations from cap/floor volatilities to swaption volatilities.

Comprehensive Support For FX and Money Market

Oberon® offers powerful features to support the management and analysis of FX and Money Markets, including:

- FX trade valuations can be generated from both FX forward points and the implied forward rate calculated by interest rate parity
- The quotation convention for FX Rate and FX forward points can be configured to reflect the convention in each market
- Splitting of FX deals (e.g., an FX Swap into a FX Spot and a FX Forward or splitting a cross-currency transaction into USD-based transactions)
- Support for a number of different types of FX options, including vanilla, digital, knock-in, knock-out, barrier) and option strategies, including straddle, strange and cylinder
- Capture and reporting of customer margins on deals

Straight Forward Installation and Seamless Integration

Flexible Interfacing Module

The Oberon® Business Interface (OBI) is a programmable, COM-based API that exposes trade and market data, business analytics and market data events to external applications. Integration with existing business processes is straightforward. Trade information can be readily extracted from Oberon® into third-party settlements, accounting and back office systems. All business analytics are exposed in the Oberon® Business Interface, allowing for simple, flexible reporting. Tailor made reports can be provided quickly and effortlessly.

Events are propagated in real-time allowing external applications to react to market data or trade events in Oberon®. The OBI is more powerful that direct database access because:

- It "hides" the user from the complex details of a system's database schema
- It is backwards compatible which provides protection from schema alterations

Oberon® can export static and calculated data to a relational database, allowing flexible analysis and reporting using third party tools and analysis of historic trends in your portfolio.

Automatic Live Data Feed Capability

Oberon® includes a live feed facility to automate the input of market data such as yield curve data and FX rates. Oberon® can be configured so that yield curve and trade analytics are automatically updated as market rates change. Source data feeds can be updated from any major information vendor.

Fast, Easy, Secure Web-Enabled Access

Oberon can leverage standard web-enabling technology to provide easy user access via the web in a secure environment. By using secure web technology, financial institutions can quickly deploy Oberon to people with the right access at branch offices and remote locations, any time and anywhere. The Oberon installation and any updates are made only once on the server, and are then instantly available to users everywhere. In addition, with centralised data processing, only the user interface is transmitted across the network thereby optimising application performance. By deploying Oberon as a centralised web-enabled solution, your IT department can take advantage of your existing infrastructure to better manage, update, and control our solution to reduce your implementation cost, ongoing support cost, and improve IT productivity.

Comprehensive and Efficient Implementation Services

Our team of experts will help you assess your functional requirements, and meet your trade processing, valuation and risk management goals to ensure that you maximise the value of your investment in Oberon®. Our services do not stop when your deployment ends. We offer a full range of ongoing service and support to provide you with ongoing value and continuous knowledge transfer.

Oberon®:

Trade With Confidence.
Transact With Accuracy.

- **Reduce Operational Cost.**
- **Improve Compliance.**
- **Streamline Operational Process.**
- **Rapid Return On Investment.**
- **Low Ongoing Maintenance Cost.**

www.lombardrisk.com

For further information about any Lombard Risk product or service,
please contact your nearest Lombard Risk office, or visit our website at www.lombardrisk.com

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