

derivation

software

AT A GLANCE GUIDE TO DERIVATION

Why Derivation?

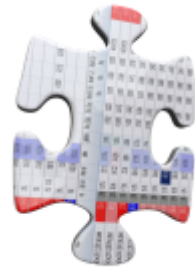
excellence • commitment • partnership

Derivation's market-leading front-to-back accounting, trading and risk management software covers the full range of user requirements in a single software package.

With bespoke development work included as part of the software implementation process Derivation will slot in seamlessly with clients' existing systems and workflow.

Comprehensive solutions

Derivation is a complete front-to-back system providing powerful solutions for all aspects of portfolio management, risk management and accounting.

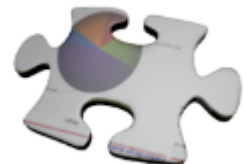


Seamless integration

Derivation has experience integrating with a variety of third party systems: data providers, prime brokers, fund administrators, OMS, EMS, in-house systems and others.

Ultimate scalability

Derivation has been designed with three points in mind: speed, reliability and scalability. With the power to calculate analytics for thousands of positions in real time, Derivation is scalable to suit clients' needs: from one desk start-up hedge funds to multiple trading desks across geographically dispersed locations.



Expert support

Derivation's support team is manned by system experts with an exceptional level of knowledge and service. Near 24hr support coverage is provided across Asia, EMEA and North America.

Tailored development

Derivation's development is largely client-driven. Customers benefit from a consultative relationship providing a highly developed system which may be added to according to individual needs and requirements.



Company Overview

Derivation was born a derivatives system, built to handle the complexities of such instruments. Through development spanning 19 years, its functionality has grown to encompass a complete front-to-back cross-asset system, suitable for many different Hedge Fund strategies, from equities to multi-strategy derivatives.

Derivation maintains a client driven approach to development, with new features within Derivation developed hand in hand with customers. Clients also benefit from an unrivalled, immediate access to its dedicated support team. With the luxury of being able to select and retain talent, our support staff are helpful, competent and wholly committed to ensuring that clients are satisfied with the product. With bases in London, Hong Kong, New York and Oxford, Derivation offers near 24 hour support coverage to ensure any issues are addressed in an expeditious, timely manner.

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Functional Overview

Product coverage

Products covered include:

Equity Derivatives ADRs, GDRs, futures, options, var & vol swaps

Convertible Bonds convertible asset swaps

Fixed Income bond futures and options, loans, frs

Interest Rate Derivatives swaps, swaptions, caps, collars, floors

Credit Derivatives CDS, CDS options

Index Derivatives futures, options

FX and FX Derivatives spot and forward FX, NDFs, futures, options

Commodities futures and future options

Portfolio Management

- Live and historic multi-period P&L
- Comprehensive set of models
- Fast trade booking: enter buy, sell, buy to cover, sell short trades
- Full trade lifecycle and audit
- UCITS funds: book short equity trades to CFD
- Post-trade compliance
- Portfolio rebalancing and position transfers
- Stock borrowing and accruals
- Option trading: div calcs, vol surface & graphs, scenario manager
- Scenario analysis and 'what-if' positions
- 2D pairs grids, portfolio re-balancing and pivot tables
- Rich formula language to build bespoke columns

Order Management

- Pre-trade and post-trade compliance
- Book orders manually or import
- Route and allocate to multiple brokers
- Create watchlist worksheets
- Portfolio rebalancing

Risk Management

- Value at Risk: multi factor and multi asset
- Scenario analysis stress testing
- Risk shocks
- Real-time calculation of Greeks
- Risk bucketing by any factor, aggregated at any level
- Risk limits: set and monitor exposure limits to each Greek
- Exposure monitoring

Reporting

- Simple automatic one-click reports
- Customizable report templates
- Tabular data, scatter, column, stacked column, bar, line, pie charts
- Chart historic inst data, fund performance data, worksheet data
- Save, customize charts, edit and export chart data to Excel
- Customize report branding

Accounting & Financing

- Administrator, Average Cost and FIFO accounting
- Automated corporate actions
- Financing and share class accounting
- P&L attribution to Greeks
- Flexible cash management
- Automated calculation of commission, tax
- Prime broker reconciliation
- Margin reporting

Fund Performance

- GIPS fund performance attribution
- Analytics including alpha, beta, duration, skewness, kurtosis, turnover, average holding period
- Aggregate, view measures against benchmark
- Suite of predefined worksheets
- Graphical reporting

Reconciliation

- Mature automated reconciliation tool with rich functionality
- Simple and intuitive daily operations user interface
- Installed & configured by our staff for use 'out of the box'
- Reconciliation to multiple data sources in a single screen
- Single click OTC instrument matching wizard
- Many to many relationships
- Reconciliation notes and adjustments c/f from day to day
- Ultra-high-performance for reconciling thousands of positions
- 'Behind the scenes' sophisticated configuration capabilities

Data & Interfaces

- Bloomberg Data License, Server API, SAPI Lite, B-Pipe
- Load Convertible Bond data from MACE
- Load CMA credit spread data via Bloomberg
- Supports Reuters Eikon for live pricing
- Load trades and OTC instrument data from CSV file
- Publish prices and other data back to Bloomberg
- FIX: Bloomberg TOMS, EMSX, FXGO, TORA, Fidessa, Eze Castle RealTick, Hotspot, Trading Technologies
- Full prime broker, fund admin, EMS and OMS integration
- Omgeo trade matching
- API for integration with in-house systems and models
- Trade exports: auto exports to multiple brokers, email alerts

Convertible Bonds

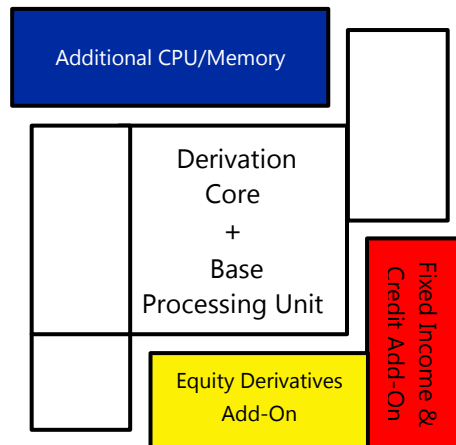
- Mature convertible bond model
- Delta calculator
- Market making: edit & publish house prices to Bloomberg
- Hedging tool
- New issue calculator
- Models SDK to integrate external models

Back Office

- Full cash and transaction management
- Shadow NAV
- System audit trails
- User access and permission controls

Pricing

Derivation offers a personalised system, enabling our customers to tailor the implementation to their specific business requirements. Packages are available on an all-inclusive per-user pricing model which takes the form of a monthly subscription for the duration of the contract.



Derivation includes the following services for free, forever:

- Implementation
- Integration with 3rd parties (EMS/OMS, Fund Administrators, Prime Brokers)
- Upgrades
- Support & remote training

Derivation costs (correct as of May 2015)

Derivation has a minimum charge of £12,000 per annum or £1,000 per month excluding hosting.

Derivation Core	£500 Per User Per Month	Access to the entire PMS & RMS system other than the calculators and analytics for equity derivative, credit and fixed income instruments. Any risk or P&L figures including totals which are dependent on such analytics are unavailable, but EOD figures are available on all positions.
Base Processing Unit	£400 Per Month	A package of resources on DSL's hosted platform including 2 virtual CPU cores, 4GB memory, 20GB disk space, shared network bandwidth and shared Database access, which is generally sufficient for a small initial user base.
Equity Derivatives Add-On	£375 Per User Per Month	Adds the provision of calculators and live analytics for equity derivative instruments to the Derivation Core.
Fixed Income & Credit Add-On	£375 Per User Per Month	Adds the provision of calculators and live analytics for fixed income and credit instruments to Derivation Core.
Additional CPU Core	£50 Per Month	Additional virtual CPU core on DSL's hosted platform.
Additional Memory	£25 Per Month	Additional 8GB memory on DSL's hosted platform.

Deployment

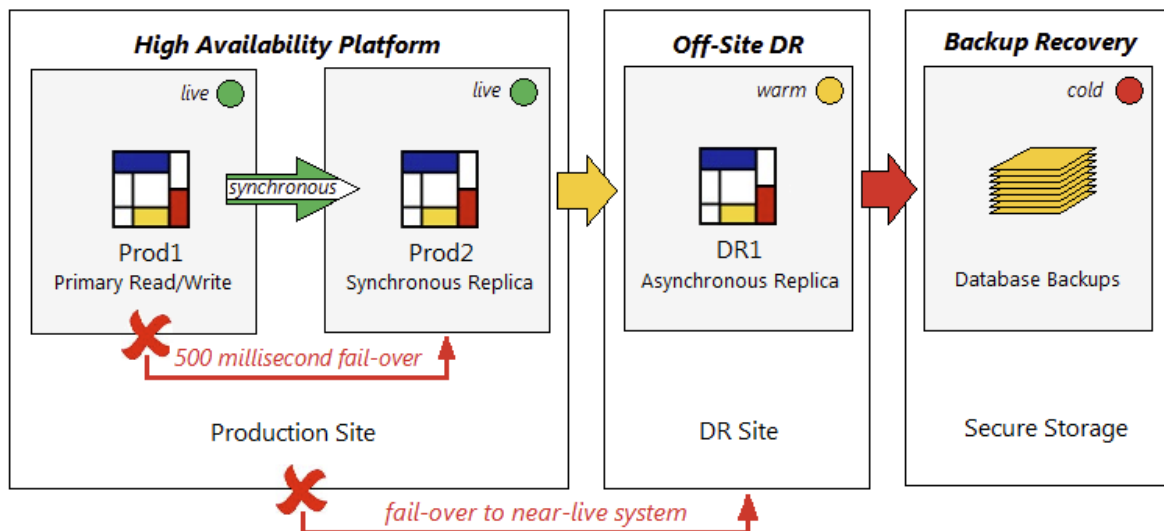
Derivation can be deployed as a local installation or as a Software as a Service (SaaS) solution via the Microsoft RemoteApp platform. In both cases the Derivation look and feel remains exactly the same, but the hosted solution is accessed by logging in via a web interface. This means the powerful Derivation Back End is maintained and run by our own support staff. For clients, this allows reduced capital expenditure on IT equipment and on-going maintenance costs and also outsources some of the requirement for IT support, thus freeing up headcount to concentrate on the core business.

For our hosted solution, Derivation has sourced the newest technology in cloud computing to design and build a cutting-edge high availability (HA) platform. This enables a robust and cost-effective deployment of our risk and portfolio management system. Capitalizing on the latest technological innovations, our solution has been engineered to ensure clients have continuous access to their data. This world-class resilience has been ensured through 4 levels of protection: high quality infrastructure, real-time replication, off-site Disaster Recovery and a secure suite of back-ups.

Derivation's high specification servers are held across three Tier 4 (ANSI.TIA-942 specification) data centres:

- Reading, UK:
UK production site
- Maidenhead UK:
Global DR Site
- Kowloon, Hong Kong:
Asian production site

Widely considered the gold standard, Tier 4 is the most robust type of data centre, providing multiple independent power supplies, 24 hour security and access control.



Within each of our production data centres, server machines are paired into "high availability (HA) twins". The twins are identical at both the hardware and software level. One machine runs the live platform with the other on hot standby.

In addition, the HA twin is part of a triplet, with a third identical “disaster recovery (DR)” server located at our global disaster recovery data centre, with is geographically removed from the main UK site.

Replication across the three machines is achieved using Microsoft’s High Availability and Disaster Recovery server software. We use:

- Hyper-V extended replication to ensure virtual machines are replicated in real-time across all three servers.
- Microsoft’s SQL Server 2012 AlwaysOn Availability Groups database high-availability and disaster-recovery solution.

At our production sites, Derivation uses AlwaysOn Synchronous-Commit mode. Each transaction is guaranteed to succeed on both databases or fail on both, guaranteeing both remain in sync with each other. In the event of a primary server malfunctioning, fail-over is automatically handled in just 500ms.

Derivation uses AlwaysOn Asynchronous-Commit mode to extend database transactions to the DR database running at our global disaster recovery site. These transactions are queued and sent and normally update the remote DR database within a few seconds.

This “triple redundancy” protects against not only machine failure, but a complete data centre failure, ensuring business continuity in a wide range of scenarios.

In addition to the normal resilience procedures and as a further safety measure, a suite of back-ups are maintained. This ensures that in the event of a major catastrophe, service can be quickly resumed or data retrieved.

Data security

As well as providing a multi-layer login procedure, Derivation has invested heavily in high-end Cisco 5500-X Series Firewalls to protect all our data centres. To further protect customers, these firewalls are configured for access with IP address whitelisting.

This is a major security safeguard as it ensures that the only traffic allowed through the firewall is from known customer IP addresses. All internet traffic from unknown IP addresses is blocked.

For those who need access to the system whilst on the move, RSA SecureID tokens are issued giving users a unique passcode each time they log into Derivation from an unknown location. Once authenticated using these tokens, the roaming IP address is temporarily white-listed.

Within the hosted architecture, each client is allocated their own discrete Virtual Machine and database. With no shared data and total control over their environment, clients can further granulate access by user to particular functions or portfolios through native software controls. Each client has the opportunity to tailor their use of the system, even managing and extracting data for bespoke functions or integrating to third party systems. With Derivation, clients have the flexibility of using their data in the way they want.

Implementing Derivation



From the very start of the sales process, our clients' needs are taken into serious consideration. We believe that our role is not to sell a product but to identify and match where our software can provide solutions for clients. For the majority of customers the vast functionality of Derivation meets their needs from day one, but where work is required to extend the functionality we operate effectively as a software consultancy. In this way, when clients buy Derivation their feature requests are loaded into the development cycle and timelines agreed.

During the sales process customers may test Derivation's capabilities for themselves and time is taken to understand the detail of any extra requirements and the relevant technicalities. Throughout this time an account manager will take time to listen and discuss customer requirements, concerns, priorities and future development plans.

For any queries, or to request a demo or free 30-day trial please contact:

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