

# Directory of Software Solutions

## For LIFFE CONNECT™

Issue 3 - June 1999

LIFFE

Choice and Innovation

PLAINTIFF'S  
TRIAL EXHIBIT  
357

PENGAD 800-631-6989

EXHIBIT

D 157

4010

LIFFE  
CONNECT™

LIFFE's New Electronic Trading Platform

# Introduction

We are very pleased to bring you what is now the third edition of LIFFE's Directory of Software Solution Providers to LIFFE CONNECT™.

LIFFE CONNECT™ for Futures, release 2.0, went ahead successfully on 12 April 1999. The Long Gilt futures contract has since benefited from tighter spreads and rising volumes, whilst users of the market have benefited from lower costs and the ability to view full market depth.

On 10 May LIFFE successfully added the Euro Bund, Euro BTP, JGB, Euroyen and Five and Ten Year EFB futures contracts to LIFFE CONNECT™, along with the FTSE 100, FTSE 250 and FTSE Eurotop 100 Index futures. A further exciting development was the addition of a whole range of new pan-European index futures and options to LIFFE CONNECT™: FTSE Eurobloc 100 Index, FTSE Eurotop 300 Index, FTSE Eurotop 300 ex-UK Index, MSCI Pan-Euro Index and MSCI Euro Index futures and options on 25 May.

The entire focus of the marketplace, the LIFFE CONNECT™ team and LIFFE's ISVs is now on Release 2.1 of LIFFE CONNECT™, for Short Term Interest Rate Products (STIRs). In order to reflect the greater complexity of STIR trading, the LIFFE CONNECT™ host will offer greater functionality than any other automated trading system in the world. ISVs are actively being encouraged to develop solutions that are capable of executing:

- butterflies, condors, strips, packs and bundles;
- implied trading for calendar spreads to match calendar spread orders against individual orders in the appropriate outright market; and

- a range of pro-rata matching algorithms in addition to price/time matching.

All these features are fully configurable by contract, yielding the ideal set of complementary functionality for each product traded on LIFFE CONNECT™.

We will continue to dedicate a section of the LIFFE website: <http://www.liffe.com/> to report on the progress of our ISVs as they build the LIFFE CONNECT™ release 2.1. In the meantime we hope you find the product descriptions in this directory a helpful guide to deciding which ISV solution is the best for you.



A handwritten signature in black ink, appearing to read 'Simon Chapman', with a long horizontal stroke extending to the right.

**Simon Chapman**  
Project Director  
June 1999

# Conformance Testing

In order to safeguard the integrity of the marketplace, LIFFE requires each trading member to demonstrate a level of technical and operational readiness and to deploy conformant software. To prepare for the software conformance, LIFFE CONNECT™ ISVs need to undertake a period of LIFFE supported testing, the purpose of which is to ensure that individual applications do not cause degradation to the live market.

It is a member's responsibility however, to perform any necessary tests to ensure that the functionality of its chosen trading application not only operates according to the specifications set out by the relevant ISV, but also that it meets the member's business needs. The Exchange cannot accept responsibility for ensuring the suitability or adequacy of any particular trading application.

There are 3 steps involved with achieving full conformance: Basic, Stress and Final. Once an application has passed the Final conformance test, LIFFE will certify its conformance with the relevant release of the LIFFE CONNECT™ Application Programme Interface (API). At this point in time, LIFFE deems the individual application as not having any adverse impact on live market operation.

It is the ISV's responsibility to continually test their application and to re-submit for additional conformance testing when required. For significant LIFFE market upgrades, software re-conformance may be made mandatory. All members should obtain confirmation from the relevant ISV that they have obtained the appropriate LIFFE CONNECT™ API certification. Members may also choose to take the LIFFE CONNECT™ API conformance tests as part of their own preparations for market entry.

ISVs are required to notify LIFFE of any significant changes made to their software after they have passed the Stress and Final conformance tests. LIFFE reserves the right to require any or all of the conformance tests to be re-taken.

## Bloomberg LP

Bloomberg is a global financial information service delivering realtime and historical prices, proprietary global news, technical analysis and analytics for financial markets worldwide.

Bloomberg's LIFFE CONNECT™ front-end trading application is fully integrated with the PC-based Bloomberg system and included in our monthly charge.

Bloomberg customers can now trade all futures contracts listed on LIFFE CONNECT™. We plan further developments ahead of the STIRs release later this year, and additional exchange links are in development.

Features of LIFFE CONNECT™ via Bloomberg:

- Market monitor, ticketing and tracking blotter
- Seamless integration of tickets into Bloomberg's risk management system
- Electronic link to back office system available for Bloomberg Trading System customers
- Order routing available now via Bloomberg global network

### Requirements

No additional hardware is needed at client site. The EASY connection required of each client to access LIFFE CONNECT™ is installed at Bloomberg's technical site in London. Customers must have PC-based Bloomberg delivered via a router to access LIFFE CONNECT™ via Bloomberg.

### Support

Our dedicated LIFFE CONNECT™ help desk (+44 171 330 7030) is staffed during LIFFE trading hours (06.00 until 19.00). Bloomberg also provides on-line support 24-hours a day, seven days a week, worldwide.

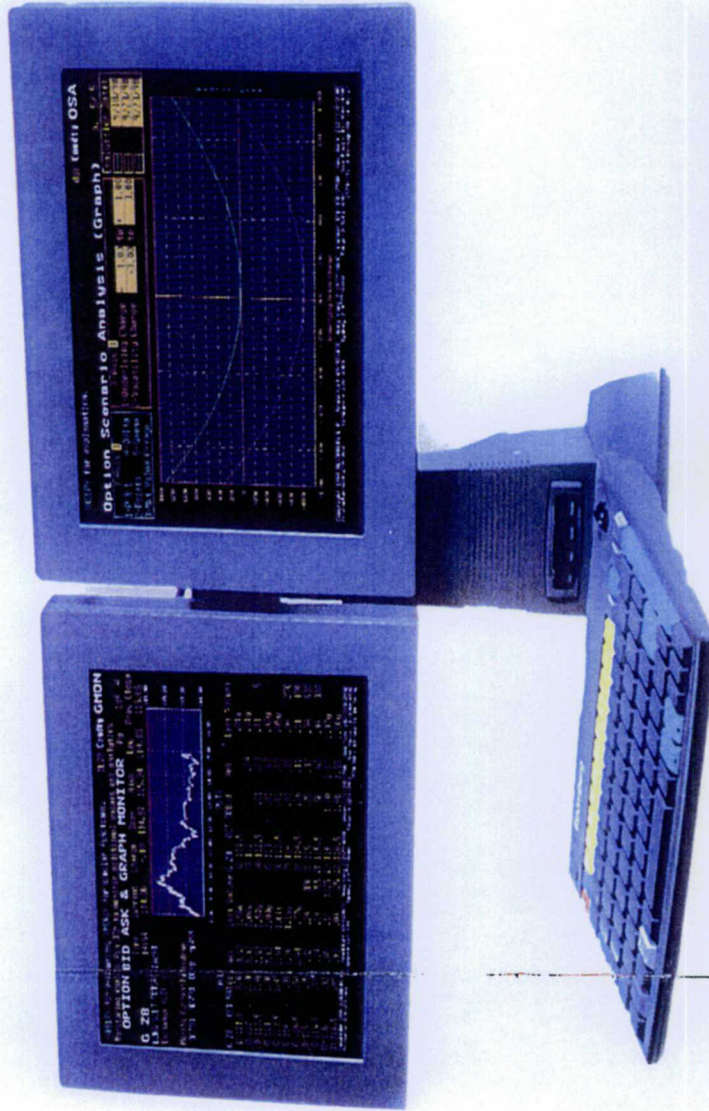
### International Marketing

We will hold a series of European seminars in June and July, and will participate in LIFFE's organised conferences in Paris and Frankfurt.

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**Bloomberg**  
FINANCIAL MARKETS  
COMMODITIES  
NEWS

## City Derivative Systems Ltd

City Derivative Systems Ltd (CDS) is the latest software company to achieve LIFFE's ISV status.

### Product

FFASTFILL, CDS's front-end trading solution, has been designed by a futures and options trader and an experienced broker. Both have brought to bear their extensive practical knowledge and experience of the trading environment in collaboration with top class software engineers to build the very best of systems.

FFASTFILL provides a concise trading tool and many user-friendly features to help brokers provide their clients with an efficient service. These features include comprehensive order history, room-wide viewing and trading, an imaginative spread trading function, intelligent stops and MIT orders, and many other functions that only come from the know-how that a hands-on trader can provide. All orders will be stored on a database so that data can be retrieved for risk analysis and management purposes.

CDS's future developments include FFASTCLEAR, a back-office package using LIFFE's new interface CONNECT

Trade Processing (CTP) to compliment FFASTFILL, multi exchange access, trading using intranet and internet and an options package that will incorporate sophisticated price modeling and risk management.

- User-friendly single click order entry system, on outright and strategy trades
- Smart and simple stops
- Bulk order reserve system
- Rapid adjustment and cancel function on all working orders
- Split client allocation
- Full market depth and average pricing
- Personal pre-trade customisation
- Audible and visual, client fill and part-fill alert signals
- Instant RFQ sent for all strategies and back month contracts
- Immediate and detailed history on all trades
- Mouse or keyboard option

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Client List

ALL  
Split-allocate  
ipC  
F&S  
GIN

Months	QTY	Price	Client	Order Number	Type
JUN99	500	120.14	HAM	431369	LIM
JUN99	28	120.05	HAM	431361	LIM
JUN99	50	119.77	HAM	431364	LIM
JUN99	249	0.08	HAM	431365	LIM
JUN99	126	0.37	HAM	431369	MKT IC

Month	Bid Qty	Bid	Last	Offer	Offer Qty	Volume	Total Volume
JUN99	500	120.14	120.15	120.15	342	247	5719
SEP99	28	120.05	120.06	120.06	211	89	116
DEC99	50	119.75	119.77	119.77	232	22	22
JUN99 v SEP99	249	0.08	0.10	0.10	530	59	101
JUN99 v DEC99	126	0.37	0.40	0.40	249	5	31
SEP99 v DEC99	570	0.28	0.31	0.31	59	3	336

Working Order	Contract	Months	QTY	Price	Client	QTY Done	Status	Order Number	Type
PULL ALL HIST	EURC BUND	JUN99 v DEC99	445	0.32	JIB	+40	Part Filled	431191	LIM
PULL	EURC BUND	JUN99 v SEP99	489	0.34	GIN	+271	Part Filled	431192	LIM
PULL	EURC BUND	JUN99 v SEP99	+412	0.07	TKY	+2	Part Filled	431193	LIM
PULL	EURC BUND	JUN99 v SEP99	372	0.09	TKY	-38	Part Filled	431194	LIM
PULL	EURC BUND	JUN99	+154	119.99	234	+154	Filled	431195	LIM
PULL	EURC BUND	JUN99	+253	116.00	SRY	+56	Accepted	431196	LIM
PULL	EURC BUND	JUN99	653	116.02	SRY	-25	Part Filled	431197	LIM
PULL	EURC BUND	JUN99	116.02	Accepted					
PULL	EURC BUND	JUN99	116.02	Traded					
PULL	EURC BUND	JUN99	116.02	Traded					
PULL	EURC BUND	JUN99	116.02	Traded					
PULL	EURC BUND	JUN99	116.02	Traded					
PULL	EURC BUND	JUN99	116.02	Traded					



## Communicating Ltd

Communicating Limited is a privately held, London-based company specialising in innovative communications software development, breaking new ground in the area of data sharing and transaction processing across business networks and the internet.

### XLConnect

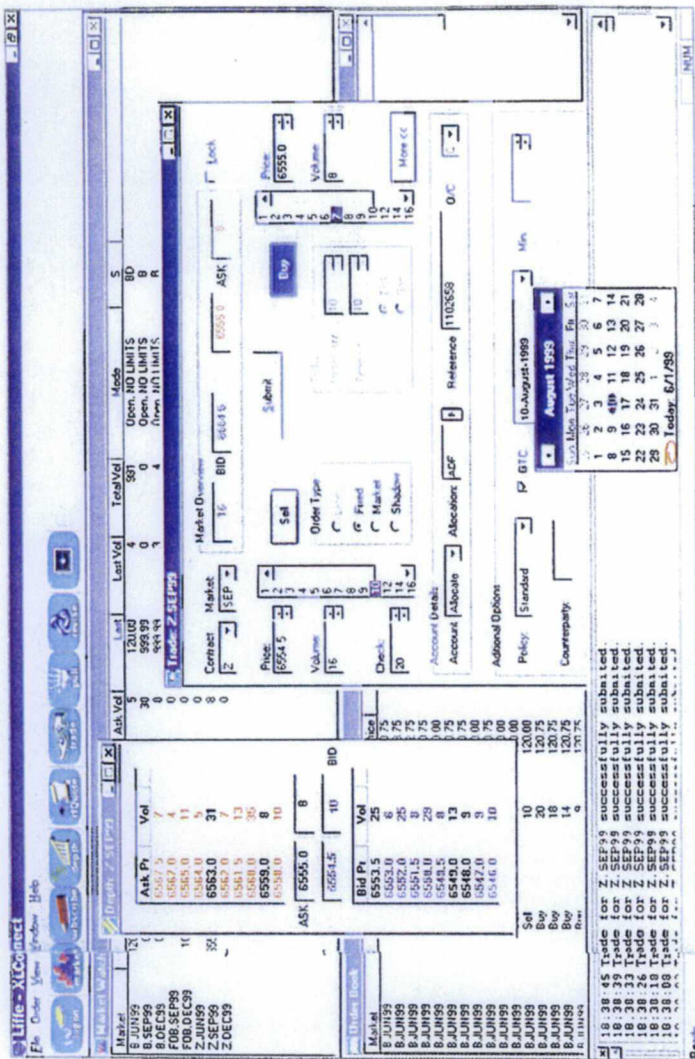
Since going live with XLConnect, there has been a great deal of positive feedback from clients. This has led to further enhancements to the original software that now combines not only all the standard features but also some unique customisations, unavailable in the more rigid WYSIWYG applications.

We continue to offer two LIFFE CONNECT™ packages. The first is a COM automation object model, a popular option with clients who wish to build their own user interfaces from scratch in VB, C++ or Excel. The second option comes as an executable file that installs a fully functional LIFFE trading application designed in collaboration with clients and focused on speed of execution, ease of use and clarity of orders.

The latest update of XLConnect also offers full trading functionality via a radio LAN card from mobile Windows CE palmtop devices.

The XLConnect futures trading package offers all of the following features:

- Functionality may be entirely mouse driven
- User defined market watch and order book windows
- Real-time user defined risk and profit/loss analysis
- Post trade order management with back office integration
- Very rapid order entry and custom scripting for user-defined program trading
- Multiple user access, whether trader or client, either across network, IP connection or by mobile palmtop Windows CE device
- Seamless integration of exchange data and user-derived pricing models



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Communicating Limited

# EasyScreen plc

EasyScreen was founded last year by two LIFFE traders in conjunction with the software company Dealing Object Technology who have many years experience of providing dealing room technology. It has quickly become established as a leader in the field of electronic trading software and is an acknowledged vendor to LIFFE CONNECT™ for both individual equity options and futures.

EasyScreen is, as its name suggests, simple and intuitive to use and is the traders preferred choice, having been designed by traders with trading requirements in mind.

Both EasyOption and EasyFuture offer full functionality including a range of sophisticated tools for stops, triggers and risk control and allows central order book management and integration into other Windows programs such as Excel.

EasyScreen's flexible architecture is PC based making it suitable for remote access and ensuring that installation is very cost effective, as there are no expensive hardware requirements. Our unique multi-host configuration allows multiple exchanges to be accessed from a single screen.

A private demonstration of our products at our offices in London or Chicago is available.

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The screenshot shows the EasyScreen trading interface. At the top, it displays 'GILT' and 'Client: 064'. Below this, there are fields for 'Last X Chars', 'Simple Stops', and 'Strategies'. The main area shows market data for GILTM, including 'Hi', 'Lo', 'Sz', 'Bid', 'Lst', 'Ask', 'Vol', and 'Chg'. A table below lists various contracts with columns for 'Contract', 'Low', 'High', 'Size', 'Bid', 'Ask', 'Volume', and 'Change'.

Contract	Low	High	Size	Bid	Ask	Volume	Change
FTSEH	6092.0	6116.0	96	6105.0	6116.0	74	2727 16.0
DAXH	5178.0	5197.0	23	5189.0	5197.0	36	1886 -9.0
BUNDH	115.83	116.09	86	116.03	116.09	44	7006 .05
EUROH	96.74	96.99	101	96.97	96.99	55	8763 .07
EUROM	96.98	97.13	104	97.09	97.06	73	3110 .01
EUROU	97.02	97.17	27	97.13	97.15	39	2744 .07
GILTH	119.04	119.27	5	119.06	119.07	6	4797 -1.3
GILTM	120.32	120.45	12	120.35	120.45	110	2746 .11
FTSE-DAX Spread	916.0	920.0	36	916.0	920.0	23	0 .0



# GL TRADE

Founded in June 1987, GL TRADE is at the forefront of trading technology with its integrated electronic trading and market dissemination solution. This dual specialisation enables any firm to offer a full range of services, from ticker systems to order routing networks.

GL TRADE has progressively increased its trading systems' market share, thanks to GLWIN, the GL workstation that enables a wide range of market participants to trade on several open outcry and electronic markets simultaneously from the same screen. This list includes: LIFFE CONNECT™, GLOBEX2, TOPS, EUREX, MATIF, MEFF and IDEM.

The launch of LIFFE CONNECT™ for Futures on 12 April 1999 was a great success, confirming GL's position as a major player on the LIFFE market.

GL is currently focusing on enhancing its software for the introduction of LIFFE Short Term Interest Rate products this summer and expanding the GL offer to its international clients in Europe, offering both local gateway and facilities management solutions.

Futures specific functionality includes:

- pre-trade risk management  
Stop Limit
- Stop Loss and Market-If-Touched order types
- inter-contract and inter-market strategy trading facilities
- security controls
- order management system.

GLNET, the GL TRADE private international trading network, enables electronic trading through GL WIN units or through open APIs. Trading of all financial products (equities, bonds, and options contracts) from any market, for both members and non-members is possible.

Currently, GLNET has 26 connected markets in over 11 countries with access to an additional 12 markets in progress including: OM, BM&F, SIMEX, SFE and HKFE.

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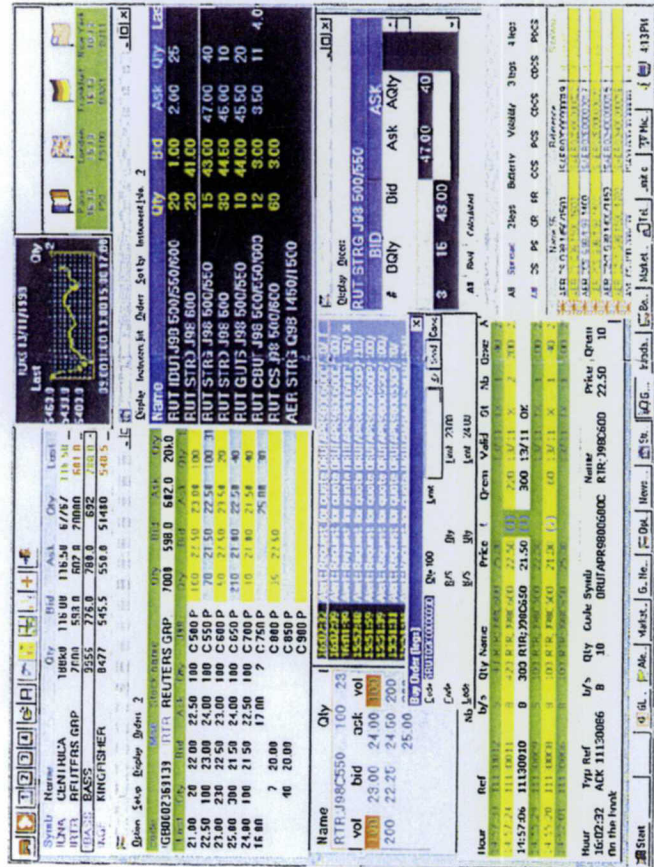
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# IRIS Investment Support Systems

IRIS Investment Support Systems develops highly advanced systems for professional futures and options traders.

Founded in 1985, Iris has secured a strong position in the demanding world of exchange-traded derivatives. As a dynamic and innovative company, Iris co-operates closely with traders and risk managers to provide systems and services that fully satisfy their needs.

Headquartered in Amsterdam with a subsidiary office in London, the fast-growing Iris team consists of highly qualified and experienced industry professionals.

Iris has now introduced the Rubyx suite of products, to provide trading access to LIFFE CONNECT™ for Futures. Developed using the latest object-oriented and (D)COM technology, Rubyx provides traders with a fast, intuitive and reliable trading mechanism for automated exchanges.

Operating on Windows NT, the system contains a number of views for various types of trading activity, including:

- strategy views (for STIR futures strips, for example)
- detailed order book views
- extremely fast order entry screens supporting "point and click" trading.

The 'Power Trading Window' for example, provides a trader with everything needed to trade in a single contract, including market depth, single-click order entry, fast pull/panic, and position/profit & loss display.

For risk management, the Limit Manager allows limits to be defined and monitored on overall position size, position size per contract, or even potential position size based upon open orders. The maximum size of an order can also be defined.

The Iris London HelpDesk provides support from before the London market opens until after it closes. Out of hours support is also available.

The screenshot displays the 'Power Trading' window with the following data:

Own Vol	Ac: Vol	Vol	Ask	Au Price
91	10	115.25	115.21	
81	10	115.24	115.20	
71	10	115.23	115.20	
61	10	115.22	115.19	
51	10	115.21	115.19	
41	10	115.20	115.18	
31	10	115.19	115.18	
21	10	115.18	115.17	
11	10	115.17	115.17	

Market Summary: 30 lots above, 20 lots below. Offered: 1 at 115.16. Bid: 115.11. Net Position: -34 from/at 115.10. Mkt Vol: 3543, Own V: 668, Real Tl: +1800, MTM Tlk: +60, Mkt Stat: 14:44:47.

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Iris Power Trading Window



# OM Technology

## The ORC Trading Application

The Orc trading system is an advanced tool for trading and analysing derivative and spot instruments based on stocks, commodities, bonds, interest rates and currencies as well as for managing portfolio risk in real time in a true multi currency and multi exchange environment. The Orc front end provides the user with a rich set of the latest theoretical models for derivatives pricing, including advanced models for exotic options and structured products.

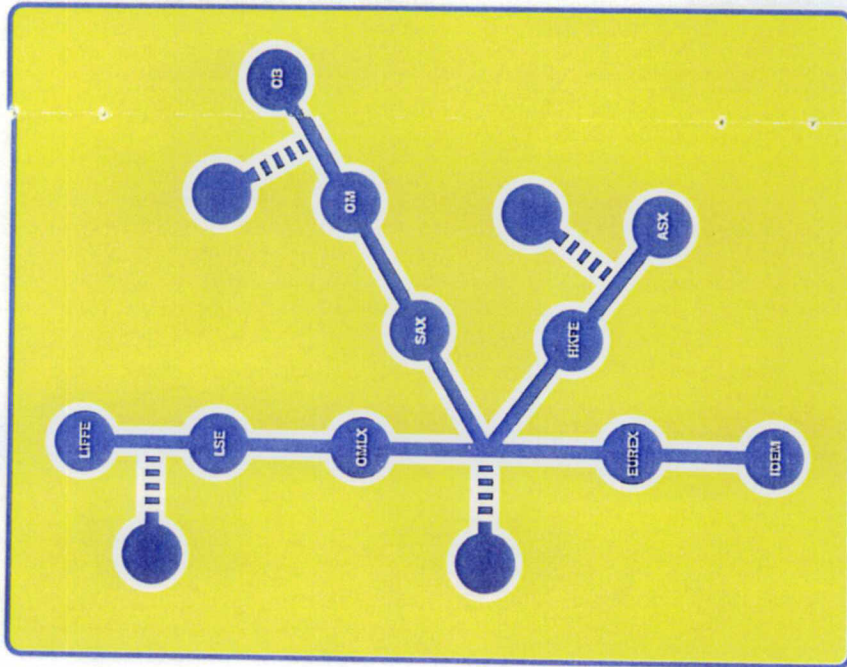
It is suitable for all user groups: brokers, proprietary traders, market makers.

## Market Interfaces

Market interfaces include LIFFE, Eurex, SETS, IDEM, OM, SAX, Oslo Bors, OTOB, HKFE and ASX. The Matif/Globex 2 interface is in development. Orc can receive price and trade information to activate pricing and portfolio functionality, either directly from the market place itself or from information distribution networks like Reuters.

The LIFFE CONNECT™ for Futures go-live on April 12th was a great success for us and development for LIFFE Short Term Interest Rate Products is complete, awaiting final testing.

# ORC™



## System Architecture

The system is built around a flexible client-server model, with all the market data and all the market connections centralised on one server (Sun Solaris), making it easy to provide a high level of security for company-critical data. The front end, which runs under Windows NT or Openstep, is designed to be extremely flexible and easy to configure by the user, making all functionality accessible with a minimum amount of effort.

## Internet Trading and Open API

The open API allows customers to integrate proprietary theoretical models, which in practice allows seamless integration of custom OTC contracts into the system. The API also allows existing risk management and full integration with back office systems. With the Orc API, our users can also develop their own order applications that communicate with the exchanges supported by Orc.

## Contact Details:

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Orc sales and support offices:

London, Stockholm, Milan, Sydney.



OM TECHNOLOGY

# PATSystems

PATSystems was founded in 1995 by futures and options professionals, experienced in trading both on the floor and from a screen based environment.

This expertise has enabled us to develop the best end to end electronic trading solution, using custom built technology.

For the Trader this provides The Personal Trading System, an application offering:

- 'single-click' trading
- Access to multiple Exchanges from a single screen
- Realtime prices, positions, Profit & Loss
- Realtime charting
- Market analysis
- Runs under MS Windows
- Connection via any network medium (LAN, WAN or Internet).

Traders connect to the PATS Host, which is made up of:

- The Price server - feeds prices direct from exchange at lightning speed to all logged on users
- The Electronic Broker - receives orders, runs an instantaneous risk check against pre-defined trade and position size limits, then routes the order to the relevant exchange for automatic execution. Orders in breach of these limits are automatically rejected.

This now makes it possible for clearing members to distribute market access to customers located anywhere in the world, while still maintaining control over their market exposure.

For the trader, the lack of human intervention now ensures unprecedented speed of order execution, giving them unrivalled control over their trading activity.

This feature-set represents a dramatic enhancement to levels of service which can be provided by clearers to their customers.

PATS currently supports access to LIFFE CONNECT™, Eurex and MEFF. Globex2 and TOPS will be added shortly.

**PAT Client**

**Hot Quotes/Trade Screen**

Current Account: PATSONLY

Contract	Bid	Offer	Last
Liffe \ FTSE100 \ JUN99	6376.0	6377.0	6377.0
Eurex \ F-DAX \ JUN99	5255.5	5256.0	6267.5
Liffe \ LONGGILT \ JUN99	114.70	114.72	114.72
Eurex \ EuroBUND \ JUN99	114.31	114.32	114.31
Liffe \ EDTP \ JUN99	113.29	113.31	113.31
Meff \ BONO-10 \ JUN99	9720	9722	9722
Eurex \ EuroBOBL \ JUN99	109.52	109.53	109.52
Eurex \ SMI \ JUN99	7135	7140	7140

Cancel Selected Bids | Cancel Selected Orders | Cancel Selected Offers

Logout | Trade | Amend | Cancel | Detail | Query | Check | Print | Menu

PA | Mkt | Hot Quotes | Rpts | Mktg | Setup | Status | Accounts

Eurex | EuroBUND | JUN99

BIDS			OFFERS		
Price	Size	Accum.	Price	Size	Accum.
114.30	311	311	114.31	96	96
114.29	158	469	114.32	557	653
114.28	198	667	114.33	327	980
114.27	210	877	114.34	185	1165
114.26	333	1210	114.35	822	1987
114.25	413	1623	114.36	348	2335
114.24	501	2124	114.37	243	2578
114.23	185	2309	114.38	210	2788
114.22	410	2719	114.39	405	3193
114.21	251	2970	114.40	969	4162

Host: Connected | Order received by host for 102343 | Price Feed | Connected

**Status**

Working Orders

ID	St	Order Details	Volume	Price	FAV	Num	Avg Price	Account
102343	W	EuroBUND / JUN99 1		114.44	0/1	0		PATSONLY

Completed Orders

ID	St	Rec	Order Det	Volume	Price	FAV	Num	Avg Price	Account
102340	R		EBTP / JUN10		113.42	0	0		PATSONLY
102339	R		EBTP / JUN10		113.42	0	0		PATSONLY
101848	C		EuroBUND 1		114.47	0	0		PATSONLY
101749	C		EuroBUND 1		114.28	0	0		PATSONLY
101716	C		EuroBUND 1		114.42	0	0		PATSONLY

Logout | Trade | Amend | Cancel | Detail | Query | Check | Print | Menu

PA | Mkt | Hot Quotes | Rpts | Mktg | Setup | Status | Accounts

Eurex | EuroBUND | JUN99

Position: Flat | P&L: PATSONLY

Contract	Date	Posn	Ave P	Last	Open	Cur P&L
EBTP	JUN99 0			113.31		
FTSE100	JUN99 0			6377.0		
LONGGILT	JUN99 0			114.71		

No Fills | No Individual Fills

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# QT SOFTWARE

## Ace Player

QT was founded in 1989, and immediately successful as an options market-maker and joint-venture technology partner.

Since 1996, QT's resources are exclusively focussed on developing the *AQTOR*® software, with a strategic emphasis on servicing a few clients across Europe with unrivalled capabilities for automated quoting and trading.

## Advantage *AQTOR*®

Unique amongst front-end systems, *AQTOR*® empowers traders by providing them with the capabilities of **general automated programming trading**, including;

- automated responding to all types of quote request
- automated bid-ask quoting
- hidden quotes with electronic market eye
- automated contingent trading

Flexibility is guaranteed through the provision of a **scripting environment** by which traders can steer their quoting and trading behaviours, whilst security is guaranteed through various limit control parameters.

## Ascendant for LIFFE CONNECT™

*AQTOR*® is conformant for LIFFE CONNECT™ for Equities and Futures, and it will be made reconformant for the launch of LIFFE CONNECT™ for STIR Futures, and again next year for the launch of LIFFE CONNECT™ for Financial Options.

Target clients for *AQTOR*® are LIFFE members who wish to use automation technology as a lever towards achieving better price execution, whether for options market-making, arbitrage, OTC hedging or brokerage.

QT can maintain and support *AQTOR*® installations anywhere in Europe, with an all-inclusive online service midway between standardisation and consultancy.

*AQTOR*® is a registered trademark of QT Management AG



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http: //www.aqtor.com (from 3Q, 1999)

# crossfire

## Exchange Independent Web Based Order Routing

Crossfire™ is built from Microsoft technologies and custom components to provide fast, secure access to a range of markets via the Internet (or LAN). Users can configure a single screen to submit orders and manage the fill process simultaneously with both LIFFE CONNECT™ and EUREX (with a generic interface to any electronic market).

The screenshot displays the Crossfire trading interface. At the top, there are three contract selection buttons: 'Five Year JUN99', 'Five Year SEP99', and 'Five Year DEC99'. Below these are control buttons for 'Buy', 'Sell', and 'Stop'. The main area contains order entry fields for 'Contract' (Five Year JUN99), 'Client' (Bank 1), 'Expiry Date', 'Volume' (10), and 'Price' (115.63). There are also 'FULL' and 'CANCEL' buttons. On the right side, there are several panels: 'Offers' showing price, size, total, and average; 'Message History' showing a list of messages; and a 'Market Data' table with columns for 'Order Booklet', 'Market', 'Last Price', 'Avg 10 Price', 'Order Status', and 'Share MFD C. Orderbook'. The table shows data for 'Five Year JUN99' with a last price of 115.63 and an average price of 115.63.

Incorporating sophisticated message handling, Crossfire™ allows users to offer end clients and brokers remote access to the exchange, securely, via the Internet and to provide real time updates on their positions across the Internet.

### Crossfire™ also features:

- Depth of market and price data
- Support for "virtual" contract types
- 24 hour global order book management
- Dynamic limit management
- Real time breach alerts
- Automatic trade lockout

Work is well advanced on the development of functionality to enable fast and efficient strategy trading for LIFFE Short Term Interest Rate contracts (STIRs). Further performance tuning of server

components has been undertaken to ensure optimum performance for the larger trading volumes expected for STIRs.

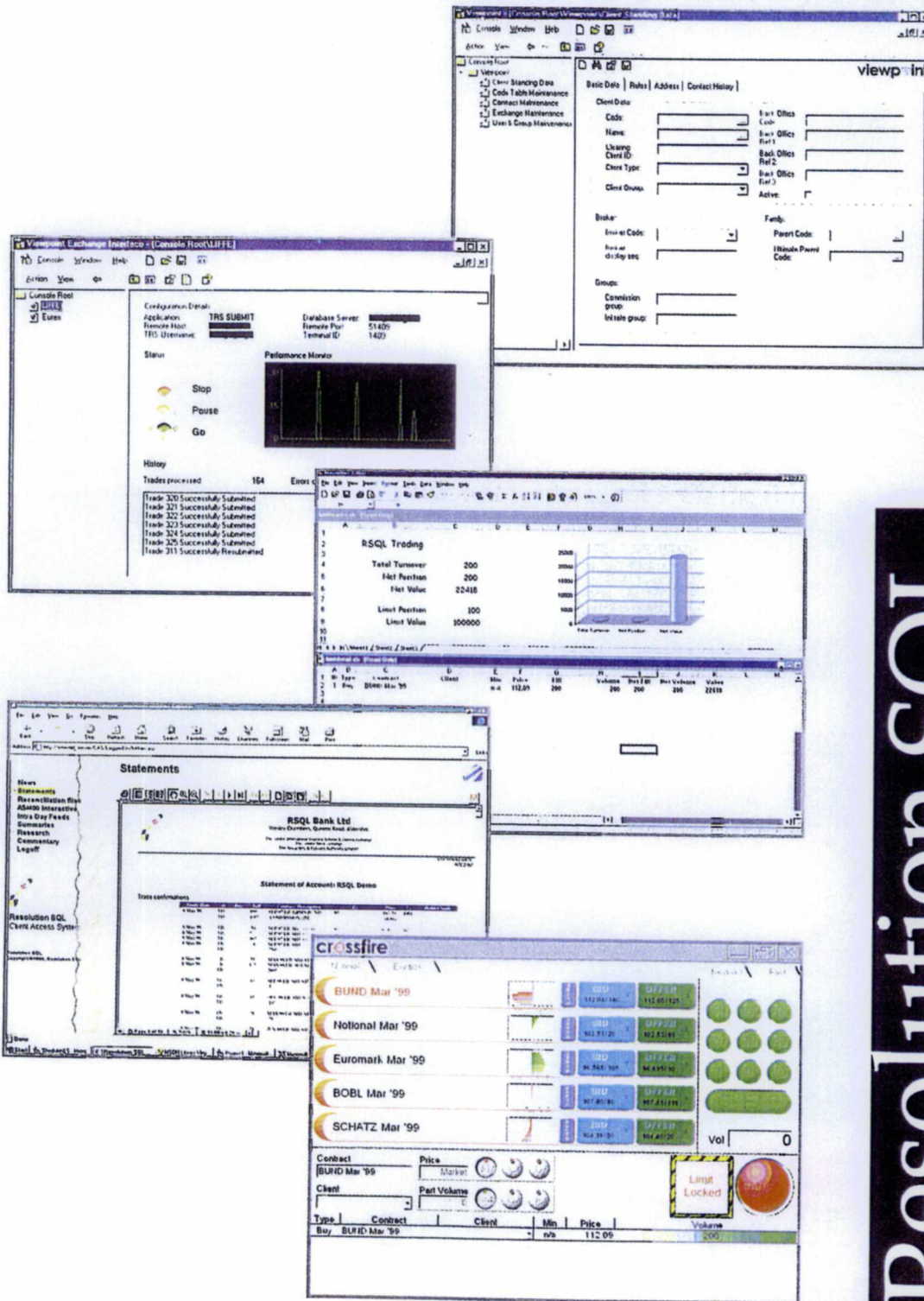
Development of the Internet Java version of Crossfire™ is progressing with Limit Management further enhanced to provide tighter controls for this version.

Resolution SQL has developed a unique range of component-based solutions to provide a Straight Through Processing framework with an integrated process from order placement, integrity checking, execution, order book management and limit handling through to trade matching and allocation into the back office.

Crossfire™ has been integrated with Viewpoint™ at a number of client sites, providing a seamless process from automated execution and acceptance through to trade allocation into the back office.

Microsoft Certified  
Solution Provider

Partner



# Resolution SQL

For further information on Crossfire™ contact: Patrick Thornton-Smith or Steve Grob, Resolution SQL Limited  
 Tel: +44 171 407 7727/+44 1252 336060 E-mail: sales@rsql.com http://www.resolutionssql.com



Reuters Futures Trader (RFT) was launched on April 12 1999 to coincide with the launch of LIFFE CONNECT™ and is currently used by 12 member firms in London. It offers a quick, effective and accurate solution for futures traders requiring a single point of access to multiple futures exchanges including LIFFE CONNECT™. RFT will be continually enhanced to support new contracts and there will be a major new release to support Short Term Interest Rate contracts when these are launched onto LIFFE CONNECT™ by LIFFE in August. The product can also access the LIFFE Individual Equity Options market from the same desktop. RFT is available as a rented software-only product and will be launched globally for access to LIFFE internationally.

**Contact Details:**

For further information or a product demonstration please contact:

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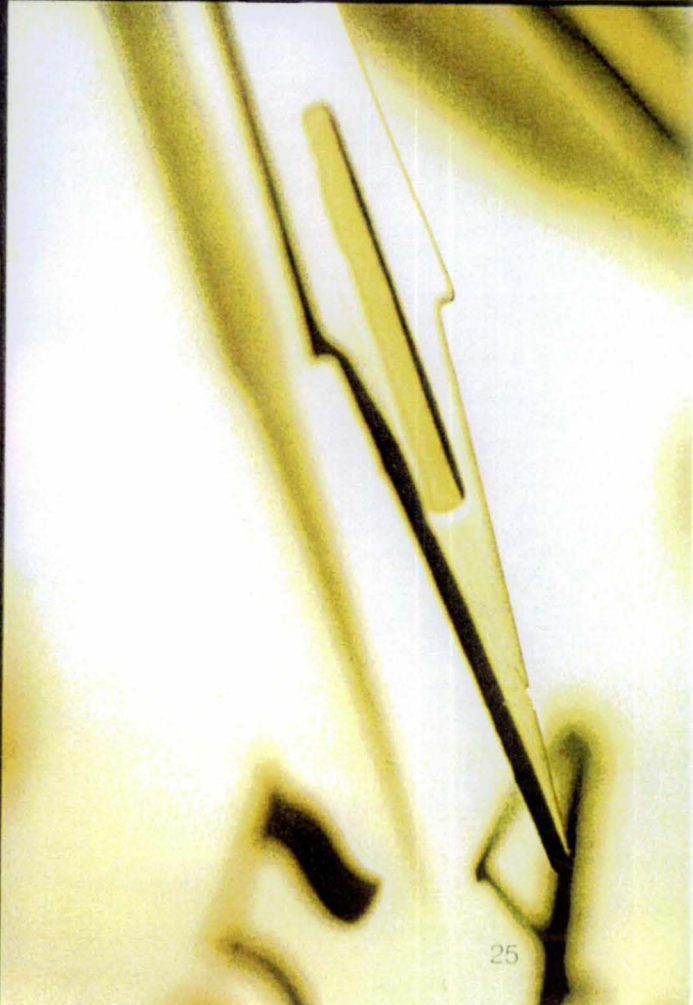
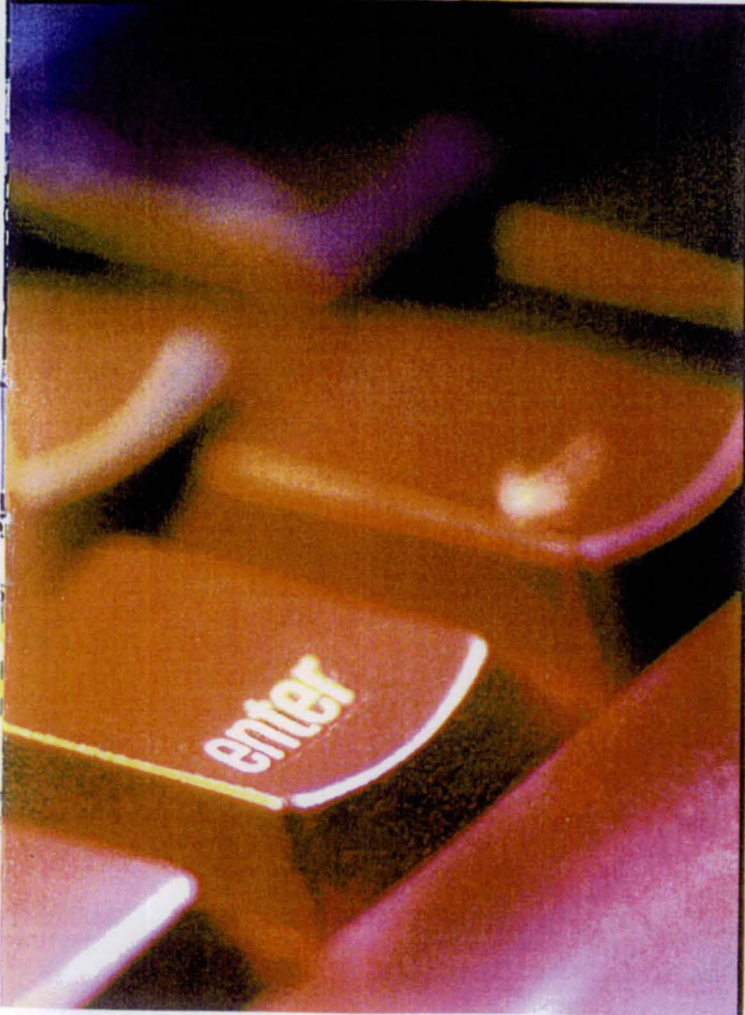
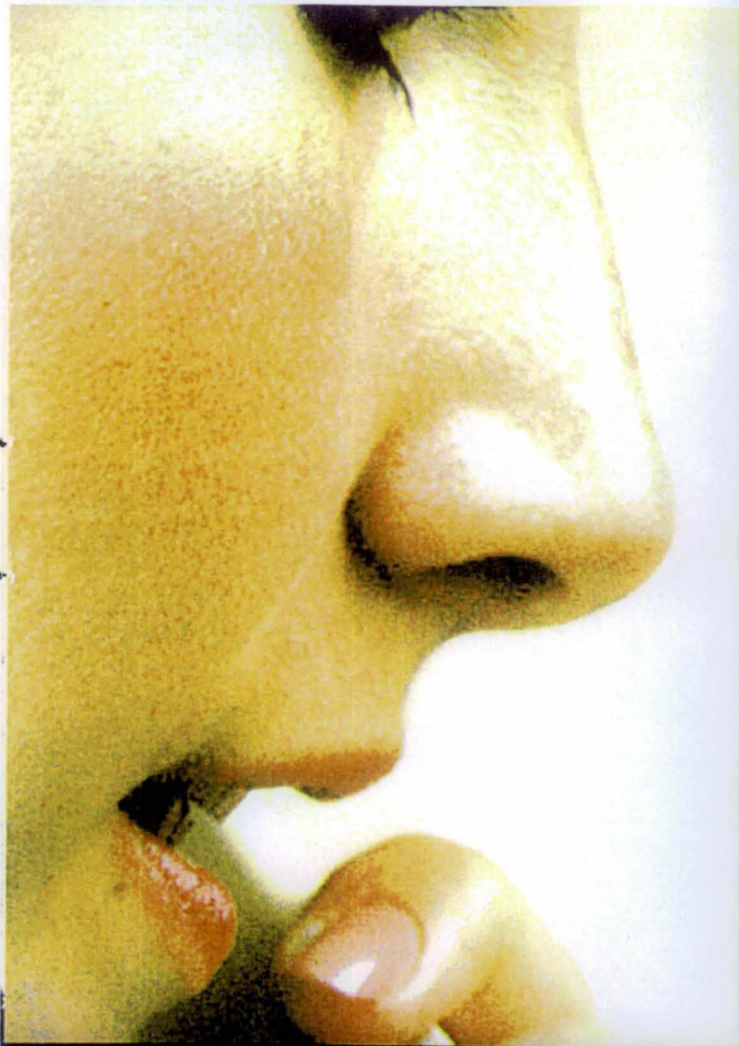
Product demonstrations are available.

Reuters is the leading provider of global financial market news, real-time data and transaction services, with over 457,000 users in 57,000 institutions. Access to electronic exchanges is part of Reuters global strategy to provide straight through processing solutions.

We are committed to customer service and dedicated professional support. Intensive, quality training is available for RFT clients for both users and technical staff.

Exchange access is part of the managed order routing services provided by Reuters InterTrade Direct (formerly Liberty SA). Counterparties can be contacted electronically anywhere in the world and orders routed for execution on the world's major markets. Access to electronic exchanges is part of Reuters global strategy to facilitate straight through processing solutions.





## royalblue technologies plc

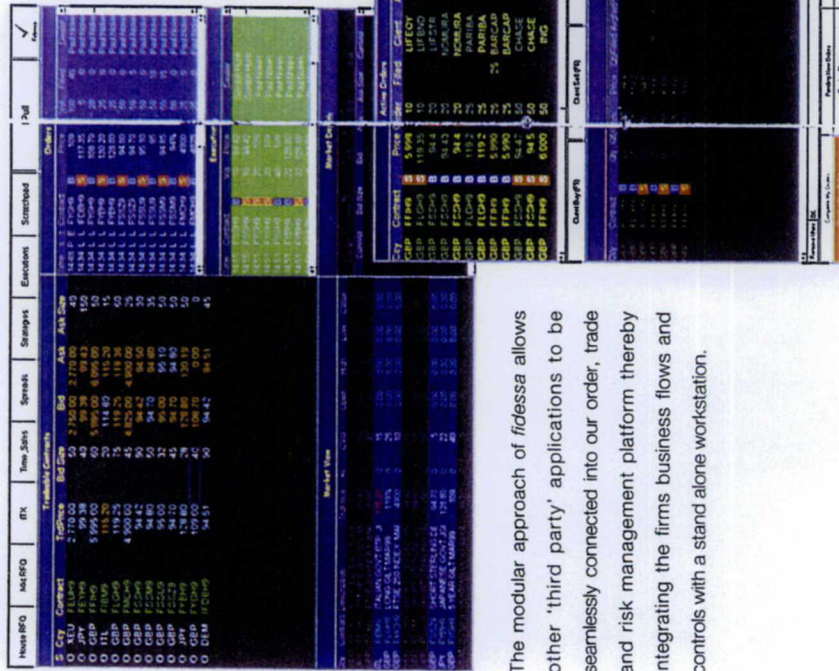
royalblue is the leading supplier of cross border trading technology. The firm has a market capitalisation of \$190m with 350 staff across seven locations including London and New York.

Our approach to the provision of trading technology is to focus on the complete business process and flows of an investment bank, including direct Market Execution, Risk Management, Order Management and Client Allocation and Confirmation.

We have extended the *fidessa trading platform* to include the LIFFE Market Access System, which enables you to trade the regulated financial futures contracts through the LIFFE CONNECT™ trading system; features include price summary displays, full market depth, market watch, complete house order and execution history.

The well proven *fidessa Risk Management and Order Management* system enable you to monitor and control the trading and order flow within the firm; features include position and limit monitoring, market order monitoring across the firm, real-time consolidated and trading positions, market alerts, client and house order management, electronic order receipt, real-time order status monitoring, order routing to execution services including particular traders.

The *fidessa* trader workbench provides a configurable desktop allowing the user to define the number, position and layout of all displays as well as navigation between them. Under pinning this is a dual-hot standby configuration of UNIX servers providing the central management of the firm's activities.



The modular approach of *fidessa* allows other 'third party' applications to be seamlessly connected into our order, trade and risk management platform thereby integrating the firms business flows and controls with a stand alone workstation.

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# RTS Realtime Systems

RTS Realtime Systems Group is the leading supplier of an innovative all-in-one solution for worldwide professional financial trading. More than 100 companies with over 1,500 traders in Europe and USA including international banks, brokers and successful independent traders benefit from our system.

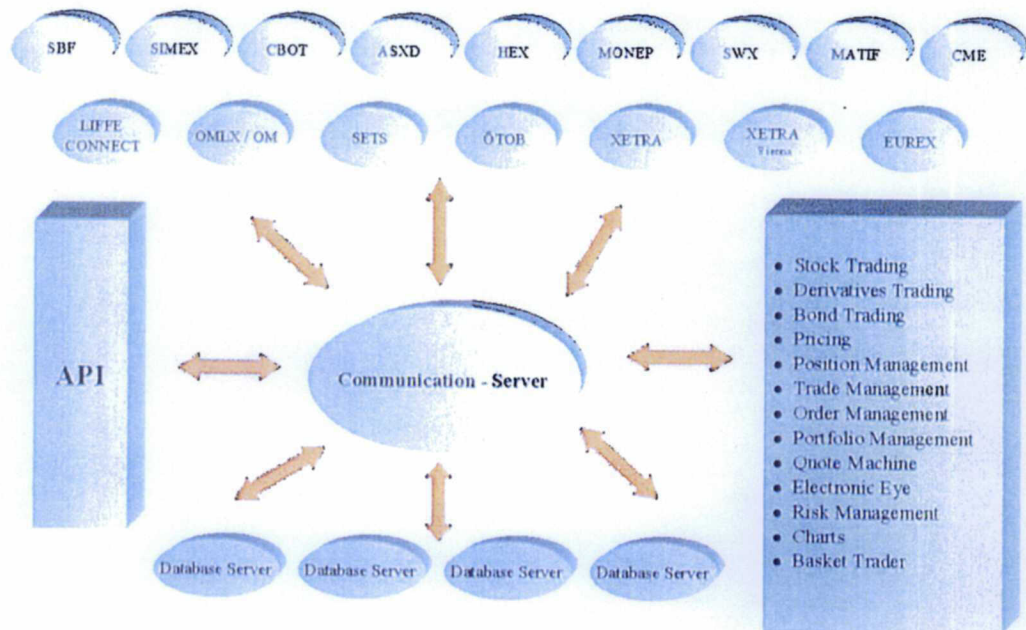
With experience since the very beginning of DTB, RTS has extensive know-how in electronic trading environments and is able to deliver a reliable and comprehensive solution: RTD (Realtime Trading Desktop). With RTD, real time trading is possible across worldwide electronic markets, across all products from a single screen.

RTD consists of an integrated trading and front office system with connection to the back office and with all the functionality a trader desires:

- Pricing
- Position keeping
- Risk Management
- Trading
- Quote machine
- Electronic eye
- Charts
- Realtime data processing

RTD architecture is designed to grow with you, it can be expanded from one single trading system for one exchange to a worldwide trading platform.

Exchanges already integrated in RTD:	Further exchanges that follow soon:
<p>LIFFE CONNECT™ for Individual Equity Options and for Futures</p> <p>EUREX XETRA XETRA Vienna ÖTOB EQOS OM OMLX SETS HEX</p>	<p>CBOT CME MATIF MONEP CAC 40 SWX</p>



**RTS is your partner from the first contact until final implementation and beyond.**

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Product demonstrations available

## RTS Realtime Systems Group

Chicago • Frankfurt • London

# Trading Technologies

Trading Technologies (TT) is the premier provider of global trading systems. Traders, brokers and risk managers using X\_TRADER™ gain a trading edge and enhance their presence in the fast developing open-access electronic markets.

TT successfully launched X\_TRADER™ v2.0 (for Windows NT) ahead of the April 12th LIFFE CONNECT™ for Futures live date with many large institutions and proprietary trading houses taking the product. The forthcoming Short Term Interest Rate release gives traders the ability to trade multi leg strategies and provides enhanced risk management capabilities.

X\_TRADER™ is a high performance, multi-exchange access, fully customizable trading solution that delivers straight-through-processing.

Founded in 1994, TT continues its global expansion with sales and support offices in London, Frankfurt, New York and Chicago, with additional offices scheduled to open shortly. TT provides the global presence required to deliver the market access, state-of-the-art trading tools and client service your organisation deserves.

Master one interface and trade the world with exchange connections to LIFFE, EUREX, Matif and CME today. TT is enhancing its product mix to include Xetra, TSE, CBOT, NYSE and NASDAQ this year and has a roll out schedule for over 50 global derivatives and equities exchanges in the next 24 months.

<b>Features include:</b>	
<ul style="list-style-type: none"> <li>■ Single screen trading for multiple electronic markets.</li> <li>■ Click trading</li> <li>■ Flexible quoting system</li> <li>■ Instant position windows</li> <li>■ High speed price dissemination engine</li> </ul>	<ul style="list-style-type: none"> <li>■ State-of-the-art order routing</li> <li>■ Pre-market exposure risk management for customer business</li> <li>■ Market maker and broker related functions</li> <li>■ Open API easily links to in-house and 3rd party applications</li> </ul>

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The screenshot displays a trading platform interface with several key sections:

- Market Data:** A table showing bid and ask prices for various contracts. For example, CD JUN99 has a bid of 6720 and an ask of 6721. ES JUN99 has a bid of 135200 and an ask of 135300.
- Order Entry:** A central panel with 'Buy' and 'Sell' buttons, along with fields for quantity (5), price (116.02), and order type (Limit).
- Account Information:** A sidebar on the right lists user names: STEVE, BLAKE, DAVID, RON, TIM, FUNDX, and PETER.
- Order Book:** A table at the bottom showing the status of various orders, including their execution status, price, and quantity.
- Summary Table:** A table at the bottom right providing a summary of positions, including columns for Product, Exp, Strike, C/P, BuyQty, SellQty, NetQty, P/L (Last), and AvgBuy/AvgSell.



TRADING TECHNOLOGIES™

# Trinitech Systems

Trinitech Systems, Inc (TSI) is a publicly traded company on the American Stock Exchange. Trinitech develops and markets advanced electronic trading systems for brokerage firms, international banks and global exchanges trading in equities, currencies and futures and options. The client base exceeds over 200 firms and offers a complete product line integrating proprietary trading software with the Company's patented flat panel hardware technology.

Our goal is to become the leading provider of real-time electronic trade entry and routing systems to the global financial services industry, thereby offering its customers the ability to enter and route orders and executions from "end-to-end," from the buy-side/retail institution or remote branch office through to the exchange floors and electronic exchanges.

At the heart of TSI's solution for LIFFE CONNECT™ is the Order Book Management System (OBMS). This can be implemented on the broker's sales desk and also directly with their clients. This core module provides a quick efficient order capture, routing, order book and trade management facility. Through a number of API links and TSI gateways we can access both electronic and open outcry derivative exchanges around the world.

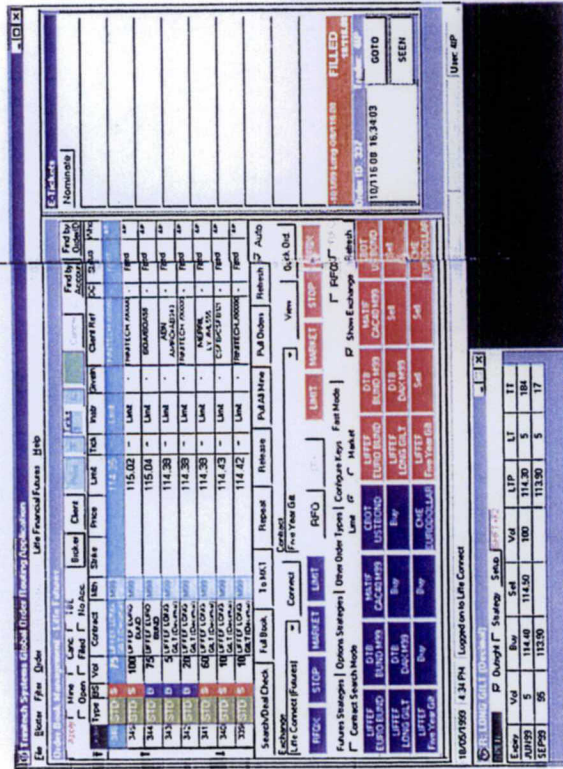
In addition to the OBMS core for LIFFE CONNECT™, Trinitech offers a host of other components that provide Internet connectivity, risk control and connectivity between overseas OBMS installations and third party systems within a global broker. As a leading supplier of FIX based solutions to the Equities markets Trinitech have been very involved in the enhancement of the FIX protocol for Derivatives trading. All of our products are available in flexible building blocks and can be acquired either as a stand alone or networked solution.

Overall, Trinitech Systems, Inc. provides an industrial strength solution that has been functionally proven to provide for major brokerage firms within Futures and Options. TSI is dedicated to providing clients a fully integrated family of products that enables firms to compete in today's competitive environment.

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LIFFE are installing network hubs in the following international locations. US locations are subject to CFTC approval.

For further international locations, please contact the primary office.

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Notes

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