

Covered in this issue	
Inforalgo's STP Tools	1
The Managed Services Centre	1
Uploading Trades from Multiple ECNs	2
Order Routing & Execution	2
Interfacing to OASYS	3
Interfacing to Euronext	3
Order Routing & Execution	4
Inforalgo's Pro-active Support	4

Welcome to the second issue of STP Matters.

Our lead story this time is on the new STP Tools and "Cross Product" modules developed by Inforalgo that enable us to build new interfaces quickly and cost effectively yet leave you the client able to make future changes and enhancements yourselves.

It is often said that for STP to be effective the middleware must contain 5 key ingredients: -

1. **Mapping** Tools to map data to & from one or more systems.
2. **Viewers** that enable multiple users, according to their authority level, to filter, view and maintain data on any database anywhere on the network.
3. **Monitoring** Tools to scrutinize all tasks and data flows providing conditional warnings and/or repair facilities where needed.
4. **Rules based Routing Engine** – a User maintainable rule based validation, selection and routing module.
5. **Reconciliation** processes to confirm that the different systems are synchronised with each other highlighting any unmatched data.



Alan Hadley - Technical Director.

By use of these Inforalgo tools clients can more easily manage the frequent changes to their STP Middleware environments in a cost effective manner.

Whether you wish to interface your systems via API, Flat File, FTP or MQ Series – whether it is a UNIX or Windows Platform – whether it is Oracle, Sybase or SQL Server – Inforalgo's STP methodology can save you a lot of time and money.

Call your **Bloomberg Rep** or Email us on sales@inforalgo.com

Interfaces we now offer To/from TOMS & POMS

- Consolidated Message Feed
- Multi Product Feed
- Real-time Counterparty Upload
- OASYS & TradeSuite
- PORTIA
- ADP
- CAMRA & Antares
- OMR
- Front Capital
- Euroclear
- ISMA TRAX
- Euronext Stock Exchange
- Swiss Stock Exchange
- EuroMTS
- BrokerTec & Garban
- TradeWeb /TradeXpress
- Fidessa Extract
- Bonddesk
- ValueBond
- MuniCentre
- Smartstream
- & many more.....

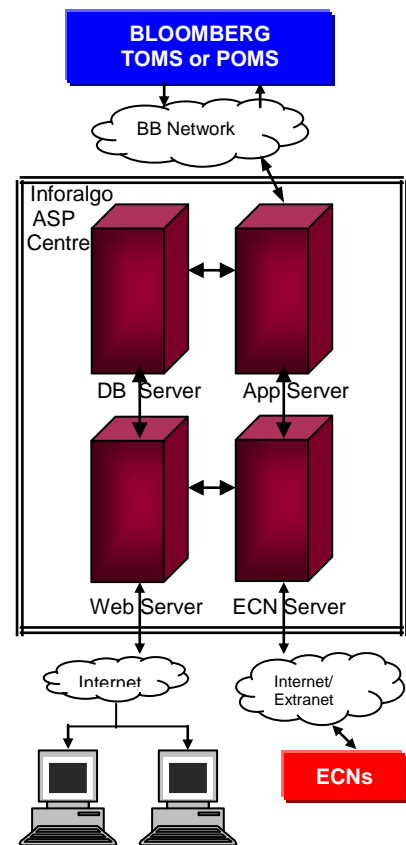
The Inforalgo Managed Services Centre

In order to save costs many financial firms have reduced their IT resources over the last 2 years and are now looking to outsourcing and the use of managed services to meet new business requirements.

Inforalgo has therefore launched a new ASP service providing all Inforalgo interfaces via a Managed Service Offering that includes: -

- Supply of Hardware and Network Options
- Supply of Disaster Recovery facilities
- Supply of Monitoring & Operational Services
- Internet, Intranet and Extranet access
- Supply of STP interfacing software
- Ongoing System Management and support for all the above- 24 hours a day, 7 days a week.

Bloomberg client's can now integrate their front and back office environments via an outsourcing service that operationally fits into their existing infrastructure providing all the benefits from STP without the hassle of supplying and managing the individual connectivity requirements.



Uploading trades from Multiple ECN Platforms

The CMFi interface uploads trade information to Bloomberg via the Consolidated Message Feed Protocol.

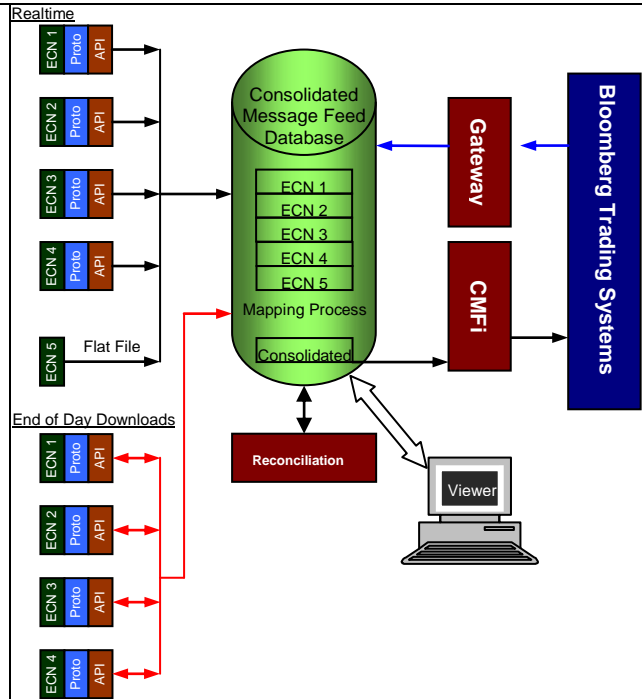
Trade information (from single or multiple sources) is extracted/inserted into a database (Oracle, Sybase or SQLServer). A record of all transactions sent is stored for a user-defined number of days.

The “Data Flow Designer” or Mapper is used to extract the trade information from a flat file, a TCP/IP Socket, an MQ Series message queue or a customer’s own database and map it into the format required.

When an acknowledgement is received back from Bloomberg it contains the Bloomberg transaction Number that is then loaded back onto the database.

The comprehensive, user configurable “viewer” enables users to add additional internal reference fields and to view trades by status (accepted/rejected) in user-defined formats as well as fixed formats. The repair facility enables the users to correct and/or resubmit any rejected transactions.

An EOD reconciliation process ensures all trades have been correctly processed.



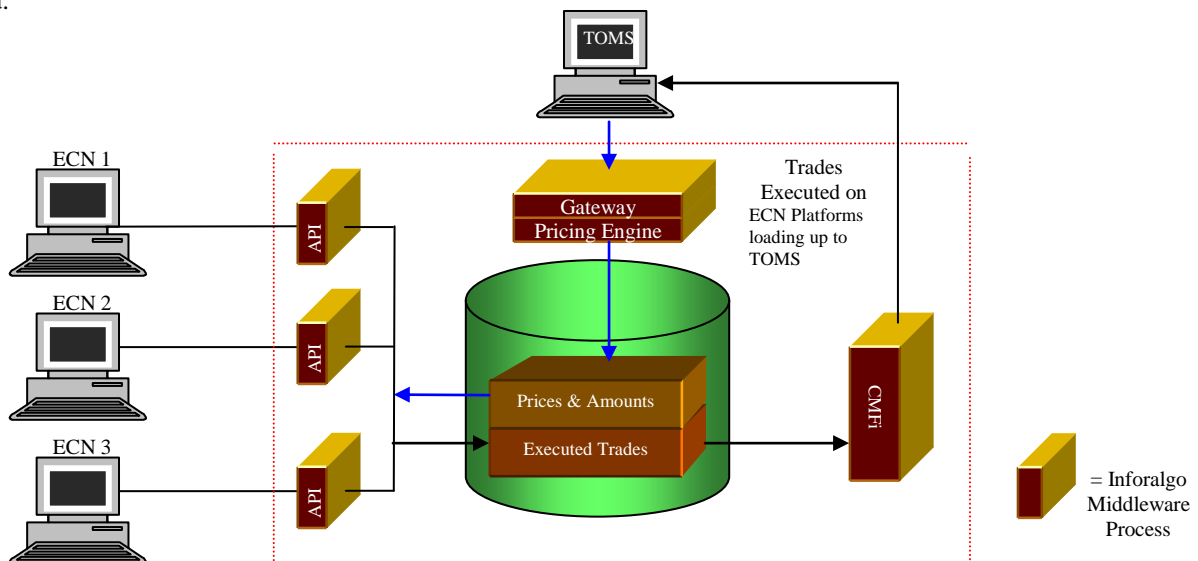
Order Routing and Execution to Multiple ECN Platforms

Due to the high demand for this middleware package the Order Routing & Execution module has now been expanded to be multi platform. The Prices and Offerings are received either from 1) the Bloomberg Gateway as a pass through or 2) directly from the Bloomberg Trade Order Management System (TOMS).

Additional facilities include: -

- + Ability to switch off Auto-Execution if market conditions require. This will then route the execution via the Traders Blotter instead. (“Pend” status)
- + Ability to exclude specific instruments or books from the offerings sent to ECNs.
- + Ability to include/exclude platforms, Counterparties etc.

A sophisticated “Control Manager” monitors all processes, heartbeats etc. and if anything is not functioning correctly it immediately stops the prices being sent out and closes all connections. Any offerings on ECN platforms are immediately pulled.



Interfacing to OASYS GLOBAL

Inforalgo's OASYS Global Direct Interface provides the automatic links between OASYS Global and the Bloomberg Trading System (and a client's own trade-processing system.)

It facilitates the automatic transmission of trades, received from TOMS via the Gateway or SBI interface, to the Thompson Electronic Trade Confirmation network via the OASYS Global Direct interface. Both Block and Confirmation level trades are catered for.

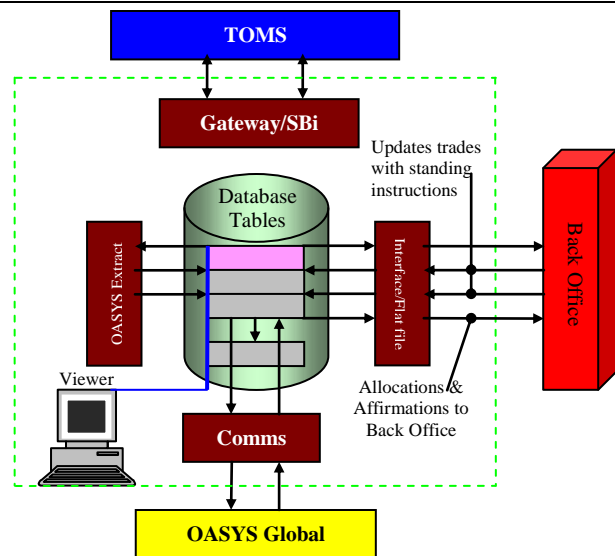
The system extracts all trades destined for OASYS Global from the "Dayfile" and records them in:

1. An OASYS transaction table.
 2. An OASYS Back Office system table.
- All in a database residing on the same machine.

An end of day procedure then

- Copies trades from the OASYS transaction table to the OASYS Complete table and then-
- Deletes them from the OASYS transaction table when they are complete, fully allocated, affirmed or cancelled and have been through to the Back Office system.

The OASYS complete table can be examined for audit purposes using a Viewer program. When records are ninety days old they are deleted from the table.



Comments from a Recent London Client

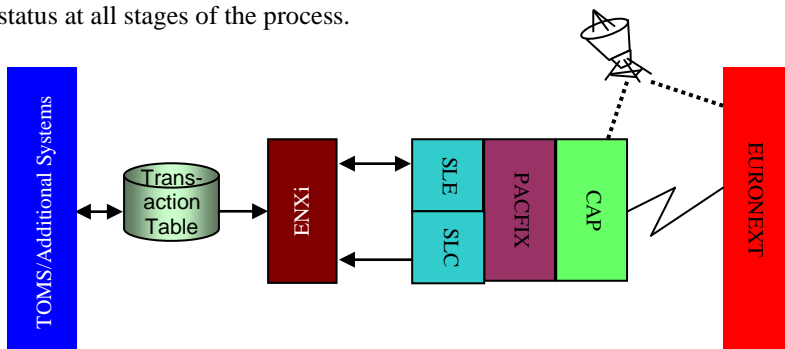
"Our Bloomberg to OASYS Global Interface allows us to process higher volumes and to manage peak periods much better than before. – We save considerable time and effort over our previous method."

Interfacing to EURONEXT TCS

Inforalgo's Euronext Interface (ENXi) provides a secure and efficient transmission mechanism for the reporting of "off market" trades to the Euronext TCS system. ENXi consists of five application modules including a FIX engine that run on the customer's choice of server: -

1. **The Extractor Module** loads New Trades or Cancellations to the ENXi Transaction file.
2. **The Interface Module** selects trades and cancellations from the Transaction file. This table has had additional fields added to supply the reporting and audit requirements of the Euronext TCS Interface.
3. **The Viewer/Repair Module** to view trades, history and to amend and resubmit rejected trades. It can be used to display all trades, trades requiring action, unprocessed trades and completed trades.
4. **The Control Panel** to monitor and control all interface applications running on the user's network.
5. **The FIX Engine** sends/receives Euronext FIX messages and maintains session information. It detects the arrival of a new message, picks up the message, generates a FIX formatted message and sends. Incoming messages are received by the FIX engine and written to the database tables (in identical format to the outgoing).

The interface includes the monitoring of sequence numbers to ensure receipt of all transactions as well as displaying the status at all stages of the process.



Comments from ABN AMRO

Inforalgo's Euronext TCS Interface gives us a cost effective solution to our off-market Euronext regulatory reporting requirements.

The new user configurable viewer offers enhanced functionality and flexibility for applications of this kind.

Simon Patston
ABN AMRO - London

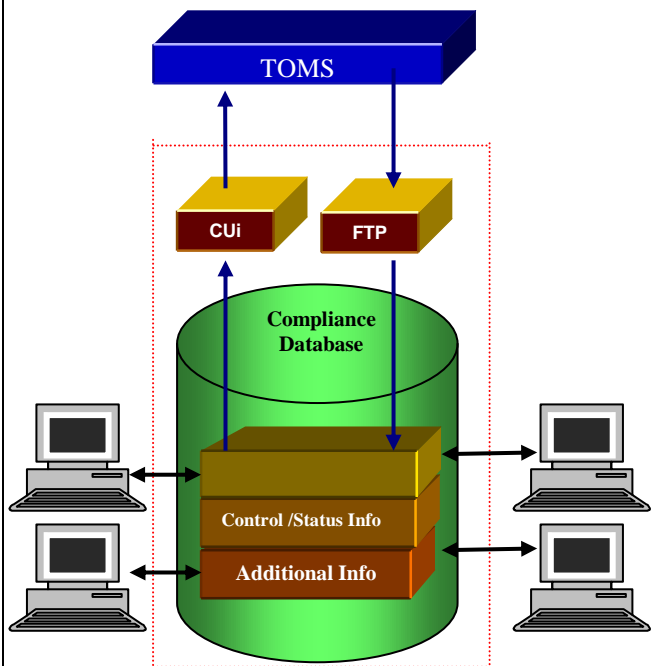
Using the Bloomberg Real-time Counterparty Upload for Compliance

A recent Client who had a paper-based procedure for recording and authorizing new “trading clients” is now automating the whole process by using Inforalgo’s Real-time Counterparty Upload Feed Interface. (CUi)

An automated data capture process is now installed where sales staff enter the new client information on an input form (VB Front End) and the department manager then authorizes the new Account.

Immediately upon authorization the CUi automatically upload the new clients to TOMS where it is available for trading. The functionality to allow new accounts to be set up on TOMS is turned off ensuring that data validation and authorization is carried out before dealing may begin with the new client.

A daily FTP process collects a “Counterparty ” batch file from TOMS and updates the process with relevant information such as last dealing date. Subsequent research and information gathering takes place and this too is appended to the initial details forming a reference file of information on the client. These details are added to as appropriate and “Ad-Hoc” reports and queries can then be made as appropriate.



Inforalgo Pre-Emptive Support for Bloomberg Clients



Inforalgo’s support centre operates 24 hours per day, 7 Days per week. Our engineers provide a dedicated helpdesk facility to all clients with Inforalgo interfaces. Availability is via telephone, fax, email or remote dial-up to the customer’s servers.

Gary Stretch – Inforalgo Support Manager

All Bloomberg clients with Inforalgo interfaces installed are provided with support and maintenance under Bloomberg’s Normal Terms and Conditions. Any on-going issues must be reported directly to Bloomberg’s help desk who then activate the Inforalgo support teams if appropriate.

As part of the Bloomberg support structure, and with client approval, Inforalgo may be commissioned to perform the following tasks via dial-in communications.

- Daily remote monitoring service to check connectivity and successful end of day routines.
- Investigation and correction of program defects, once they have been reported to the Bloomberg Help Desk.

VPN is the most common method used but most methods dictated by the client are available and normally used on a “switch on” basis. However, Inforalgo do offer a pre-emptive check up service, included in the maintenance costs, where authorised staff dial in before the start of day and check that there are no issues. Experience has shown this to be beneficial to both client and vendor as issues are often caught in advance of their causing any problems. The pre-emptive checks ensure that:

- All batch data has been received for the previous day.
- The real-time connections are up and running and have turned round for the new trading day.
- Any required file transfers to Back Office systems or 3rd party vendors have been successfully actioned.
- The previous nights end of day routines ran correctly.
- No errors have occurred since the last system check.