

CASE STUDY: DERIVATIVES RECONCILIATION

Mayfair Hedge Fund, London

REQUIREMENT:

The client, an established hedge fund with over \$20bn AUM, needed to reconcile large and increasing volumes of exchange traded derivative trades on a daily basis with its clearers to ensure trading data was accurate, charges were being levied in accordance with agreed commission schedules, and collateral requirements were being correctly applied.

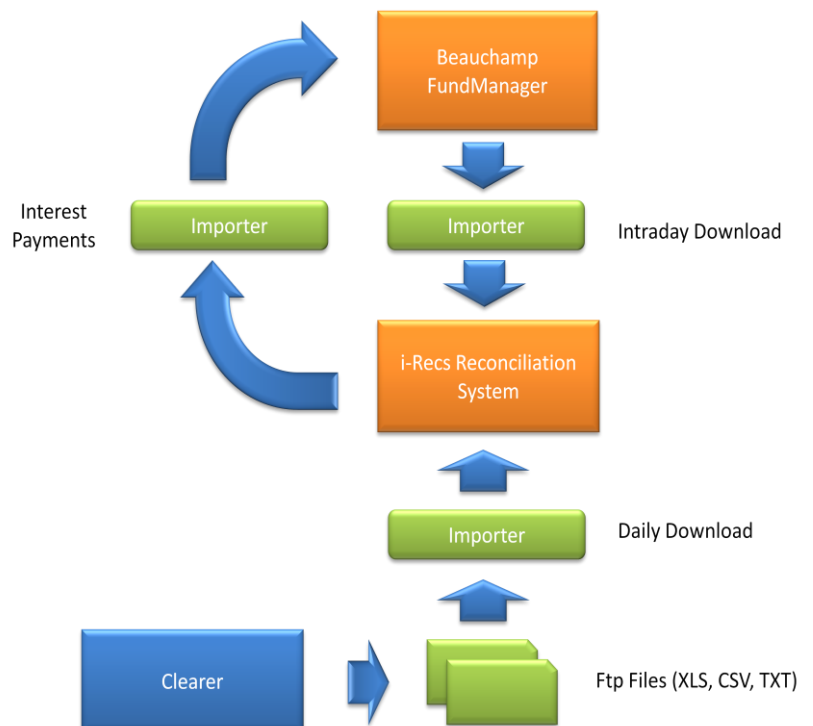
Watson Wheatley's i-Recs was identified as the best fit for the company due to its ability to automate derivative trade matching and fully account for all mark to market differences. i-Recs was required to interface with the firm's portfolio accounting system, Beauchamp's FundManager, and reconcile this against data from ten different clearers who provided data in a range of file shapes and formats. Data import needed to be completely automated; clearer files were delivered via encrypted FTP on T+1. Volumes ranged between 3,000 and 10,000 trades per day across 60 funds/portfolios containing over 1000 margin accounts. A very high level of automated transaction matching was therefore required and clear reporting available regarding breaks. Additionally the system needed to generate output files containing interest payments and other adjustments for direct upload to FundManager, and spreadsheets containing corrections to be sent to the clearers. Finally a reporting capability was required to measure clearer service quality as well as identify and quantify operational risks.

IMPLEMENTATION:

System installation and configuration was completed in 4 weeks by Watson Wheatley, initially on the client's UAT platform. i-Recs was able to interface with FundManager via a direct database read which was set to run daily in the early hours of the morning. All previous business date cash balances and positions were retrieved along with new trades, transactions, accounts, securities and identifiers.

FundManager was unable to calculate realised P&L from futures trading at the agent account level so cash balances passed to i-Recs for matching were inaccurate. i-Recs recalculated both the realised and unrealised P&L based on the received trade history, current positions and security prices to create the required margin balance to be used for reconciliation.

Watson Wheatley's Importer software was used to construct import maps to read the files containing the equivalent data from each clearer. The created maps were invoked automatically on receipt of the decrypted files and data was passed directly to the relevant i-Recs tables.



All data received by i-Recs was automatically validated for continuity of positions (based on underlying trades) and continuity of margin balances (based on underlying cash flows and calculated trade P&L).

i-Recs was configured with standard match rules for total equity derivative reconciliation along with bespoke work flows to correctly identify, annotate and route key break items. Bespoke reporting was developed to assist the client quantify the service quality provided by its clearers and to measure the volume and value of breaks by type and to help identify weak operational processes. The reports were delivered through the standard reporting engine delivered with i-Recs.

Optimal operating procedures were drawn up with the section head and provided the basis for training users in all aspects of operation of the system.

USER ACCEPTANCE TESTING:

The system was introduced to production and run alongside the client's manual process for 4 weeks to prove the system, give the users hands-on experience and to tune the match rules and work flows to maximise the automation. Cut-over to live was simply a matter of decommissioning the manual process and relying fully on i-Recs. Watson Wheatley provided both on-site and remote support to the users throughout for any issues that they encountered.

RESULTS:

The data import process has been highly automated with the use of Importer requiring only occasional manual intervention. Minor and infrequent changes to Importer maps has been required over time to accommodate the availability of new security identifiers and alterations to file layouts imposed by the clearer.

i-Recs achieves automated match rates in excess of 99% with over 10,000 trades per day delivering fully annotated breaks to the derivatives team members for remedial action.

Users have been particularly pleased with i-Recs' ability to accurately identify securities referenced in the sometimes patchy data provided by the clearer. Importer's flexibility to lookup and compare multiple and partial identifiers proved extremely beneficial particularly for options. Where a referenced security could not be identified, i-Recs' repair functionality for trades or positions could be applied by the user, the integrity restored and the audit trail updated with the manual event.

Bespoke reports have been constructed that provide key performance indicators for clearer service quality. These have been used by the client as part of its regular reviews with the clearers. Enhancements made to the process have been able to be quantified, and have had a marked effect of the workload of the derivatives reconciliation team.

A high level of inaccuracy in the charges applied to futures trades across all clearers has been identified. A process has now been established with i-Recs to itemise these differences with each clearer on a daily basis by providing accurate difference reports. In one month the charge discrepancy amounted to over \$500,000.

i-Recs has provided the company with a complete reconciliation of all aspects of its derivative trading. The overriding value of this has been in correcting the inaccurate data of its clearer's with the minimum of resources and in a timely manner.

Watson Wheatley Ltd. is a software and consultancy company with over 20 years experience of building and delivering products and custom solutions to the asset management industry.

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