

Financial Risk Solutions

www.frsltd.com



Invest|OPS™ (Outsourcing Partner Supervision)

Invest | OPS™ - Outsourcing Partner Supervision

What does it do?

The Invest | OPS™ - Outsourcing Partner Supervision product from Financial Risk Solutions ("FRS") automates the validation of operational activity performed by outsourcing partners to the investment management industry such as valuation agents, transfer agents, brokers and custodians. Invest|OPS™ also manages reconciliations between outsourced partners.

There has been an increasing trend in the investment management industry to outsource operational activities such as transfer agency and fund administration. Supervision of outsourced partners is essential for two main reasons, namely avoiding brand damage and avoiding regulatory sanctions and publicity.



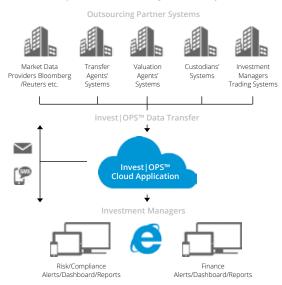


Company Boards, Regulators, Internal and External Auditors are insisting **Investment Managers:**

- (a) Establish methods for assessing the standard of performance of the outsourcing partner;
- (b) Retain the necessary expertise to supervise the outsourced functions effectively;
- (c) Manage the risks associated with the outsourcing and supervise those functions managing those risks.

Invest | OPS™ designed errors in outsourced functions at the earliest possible opportunity and alert relevant internal staff and staff at the outsourcer of potential errors. Invest|OPS™ is offered in the cloud or it can be hosted locally.

Invest | OPS™ - Outsourcing Partner Supervision



Features:

· Top Down NAV Checks · Bottom Up NAV Checks	p 03
Reconciliations / ValidationsMandate ComplianceSLA Management	p. 04
· Expense and Fee Management · Review Unit Allocation/Cashflows on Transfer Agent's Systems	
· How Does it Work?	p. 06



Top Down NAV (Net Asset Value) Checks:

- 1. NAV price movement within a tolerance of a benchmark movement
- 2. Price type movements are similar and within a tolerance (e.g. Bid, Offer, Mid, NAV are all moving in a similar way)
- 3. Share class price movements are in line with base / clean share class
- Above checks also applied on a periodic basis (QTD and YTD) to ensure small within tolerance errors are not accumulating into larger issues.

Bottom Up NAV Checks:

- 1. Significant capital flow check
- 2. Holdings with a zero price
- 3. FX rate of zero
- 4. Holdings price movement within tolerance /benchmark
- 5. FX rate movement within tolerance
- 6. Stale asset price
- 7. Stale FX rate
- 8. Market price consistent with independent data source (obviously requires independent data).
- 9. Corporate actions correctly processed

Reconciliations / Validations:

- Units in issue used to strike NAV price matches units in transfer agents' systems
- 2. Units in issue movement from previous matches transactions
- 3. Position reconciliation (Custodian to TPA) ensures all transactions are included in the NAV

Mandate Compliance:

- 1. Asset weighting checks
- 2. Risk exposure checks
- 3. Individual holdings
- 4. Excluded stocks / sectors
- 5. Cash balance below zero / target value or weight

SLA Management:

- 1. Receipt of NAV prices versus target time
- 2. Measure response times against those specified in the SLA





Expense and Fee Management:

This covers all the fee types including custodian, AUM assets under management fees. rebates, performance etc.

- 1. Today's fees are correct level
- 2. Annualised YTD fees equal published fee levels
- 3. Calculate outsourced partners' estimated fees/expenses for comparison to actual invoices / charges and those specified in the prospectus
- 4. Validate notional dealing costs
- 5. Validate swing prices basis
- 6. Calculates the OCF (Ongoing Charges Figure)

Review Unit Allocation/Cashflows on Transfer Agent's Systems

- Review consistency of cash receipts and unit allocations of individual unitholders
- Check totals of units across unitholders match total used for NAV calculations
- Check expected product margins match actual product margins from the Transfer Agent's Systems



How Does it Work?

Data Import/Rule Checking

Invest|OPS™ automatically imports data from outsourced partners, for example valuation agents, custodians, data providers, like Bloomberg, Reuters, and internal systems (when required). Invest|OPS™ performs a series of checks on the data based on a set of configurable rules setup in the Invest|OPS™ database.

If any rules are breached an automated alert such as email or text message, is sent to a configurable list of internal/external parties to investigate.

Customised Dashboard

Invest|OPS™ allows the administrator to set-up customised views for CxOs, Head of Fund Administration, Finance Management and other users – each with their own dedicated dashboard.

Dashboard consists of 'widgets' which are graphical representations of the current state of data within the Invest|OPS™ database, and other databases in the organisation.

The dashboard reduces risk by allowing the company to create real time graphical exception based views on areas that need immediate attention e.g. graphical alerts showing stale prices or late trade settlements.

Reporting

Invest | OPS™ users can change the built in reports - add new columns, reorder columns, create filters - and then save these as new reports for their personal use or for the team's use.

The reporting interface is touch enabled allowing the user to access reports from tablets and smartphones.

Report definitions are part of the configuration and are not 'baked' into the system - this means new reports can be delivered without requiring new system releases.

Dashboard widgets can be linked to individual reports so that by clicking or touching the widget the user can be brought straight into the correct report showing underlying data.

Reports are amazingly fast due to the high level of optimisation in the data retrieval process.

Users can create their own reports using a graphical interface.

Reports can be quickly exported to Excel - even reports containing tens of thousands of rows of data. Users can create reports on huge datasets without performance problems due to the FRS data caching design.

Infrastructure

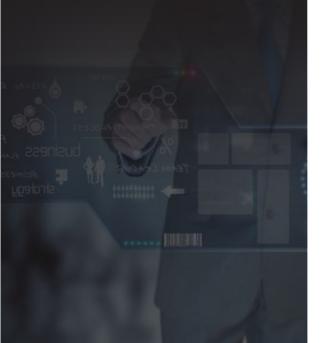
Invest $|OPS^m|$ is a cloud based application which is multi-device and touch enabled for use on appropriate tablets.



Software expertise backed by actuarial excellence

FRS was established in 1999 by a group of senior level actuaries who had spent years on the other side of the desk working with different investment administration systems. Unable to find an efficient system they began building numerous 'work arounds' and disjointed systems and quickly realised that there was a tremendous opportunity to develop a software system that could solve complex problems for life assurance companies and asset managers.

Launching FRS the founding actuaries combined their industry know-how and investment product knowledge with the skills of leading software specialists to develop FRS's flagship product Invest|Pro™. Today twenty five Life assurance companies in Europe and the US use FRS software in their core investment administration and fund accounting departments.





Get in touch

Financial Risk Solutions

2 – 4 Clanwilliam Terrace Grand Canal Quay Dublin 2 Ireland

Telephone:

Ireland +353 (0) 1 234 0000 UK +44 (0) 203 598 4484

Fax:

+353 (0) 1 234 0001

Email:

frank.carr@frsltd.com

Website:

www.frsltd.com

Registered in Ireland Registration no. 318216