opturo®

investment process optimization

Industry leading analytics and data management

Save implementation time and cost through
rapid deployment

Streamline and automate investment processes with
unparalleled flexibility

Make better and timely investment decisions with
robust analytics

Opturo's mission is to deliver industry leading technology solutions to our clients to optimize their investment processes.

We combine intelligent data management, accurate analytics, and flexible architecture to provide clients with the tools and infrastructure they require to facilitate efficient and scalable growth.

Opturo Provides:

- Performance & Attribution, Ex-post and Ex-ante Risk Analysis, Composite Management and other Analytical tools
- Automation of Front/Middle/Back-office Investment Processes
- Server, Desktop, Web and Mobile Applications

Opturo's Advantages:

- Accurate and economically meaningful analytics
- A platform that adapts to each firm's needs, not the other way around
- Rapid support to provide solutions to critical analytics & data management problems
- Customization of reporting and other investment/data processes

Unique data vizualization for in-depth analysis

User-defined custom decision tree

OPTURO
PERFORMANCE & ATTRIBUTION

decision
through
analysis

Opturo offers a range of enterprise-level front-office investment solutions.

Opturo Performance & Attribution
is an industry leading, comprehensive, low latency, in-house solution specifically geared towards improving the content obtained from, while reducing the cost of, analyzing portfolio performance. It has the design flexibility to properly analyze each portfolio's own custom investment process, providing reliable and appropriate information to both the firm and its clients.

HIGHLIGHTS

Exact Performance: Built upon daily, component-level, trade-inclusive, multi-currency returns for both longs and shorts, and notional products. Incorporates corporate actions, overnight cash flows and tax reclaim to provide accurate weights and returns for performance reporting and attribution while resolving notorious difficulties arising from intra-day transactions.

Exact Attribution: Performance Attribution & Decision Risk Attribution that accurately differentiates the effects of controllable investment decisions from the effects imposed by the market.

Custom Decision Trees: Allows the user to designate, on-the-fly, the structure of the decision process that will be employed in the attribution analysis of each fund, such as applying different investment decisions to equities than to fixed income assets within a unified evaluation of the effects of each of a fund's decisions on its performance and risks.

Improved Calculations: Performance and attribution terms are carefully made economically meaningful, avoiding the all-too-common critical calculation problems endemic in popular competing platforms.

Rapid Deployment: Opturo's proprietary plug & play technology offers a quick and cost effective implementation.

THE OPTURO ADVANTAGE

Exact and Meaningful: Every performance and attribution term calculated is the precise answer to a clear financial question.

Follow-The-Money Performance

- **Daily & Trade-inclusive:** Correctly calculates the component-level returns for any possible transaction combination of sales, purchases, flips and shorts.

- **Sign-Appropriate:** The return for every instrument has the same sign as its gain and is never below -100%.

- **Resolves problems** endemic in all popular daily, component-level, trade-inclusive alternatives such as in all versions of modified Dietz and IRR.

Decision Performance & Risk Attribution

- **Daily & Multi-period** of any specified length with option to employ real-time up-to-the-moment data.

- **Trade-inclusive.**

- **Custom on-the fly**, user-specified decision tree. Evaluates all and only your actual investment decisions as you deploy them, matching attribution to your actual investment process.

- **Roll-Ups** to portfolio and period-level are always perfectly correct.

- **Multi-Currency** with hedging.

- **Multi-Asset:** Mutually consistent equity, fixed income and balanced-fund decision analysis.

- **Long/Short:** Market neutral, 130/30, etc.

Avoids problems such as the all-too-common Interaction Terms, and the technical smoothing of temporal compounding that deprives attributes of their intended economic meaning, since Opturo's decision analysis strictly employs only precise effects of actual investment decisions.

Executive summary

Advanced Technical Features

- **Time-Series Data Visualization.**

- **Look-through capability up to 10 levels deep.**

- **Custom Reporting:** To meet internal and client performance reporting requirements.

- **Web-based:** Works in all modern browsers.

- **Rapid Deployment:**
  - Leverages proprietary plug-and-play technology.
  - Quick and cost-effective implementation.

Attribution decision tree drill-down

Individual users can build and save customized dashboards

Opturo's powerful analytics enables robust drilldown reporting down to the security level

The Opturo Envision reporting engine allows users to share interactive reports with non-subscribing stakeholders

The Opturo platform is able to graph portfolio, segment and component data through time — including all attribution measures
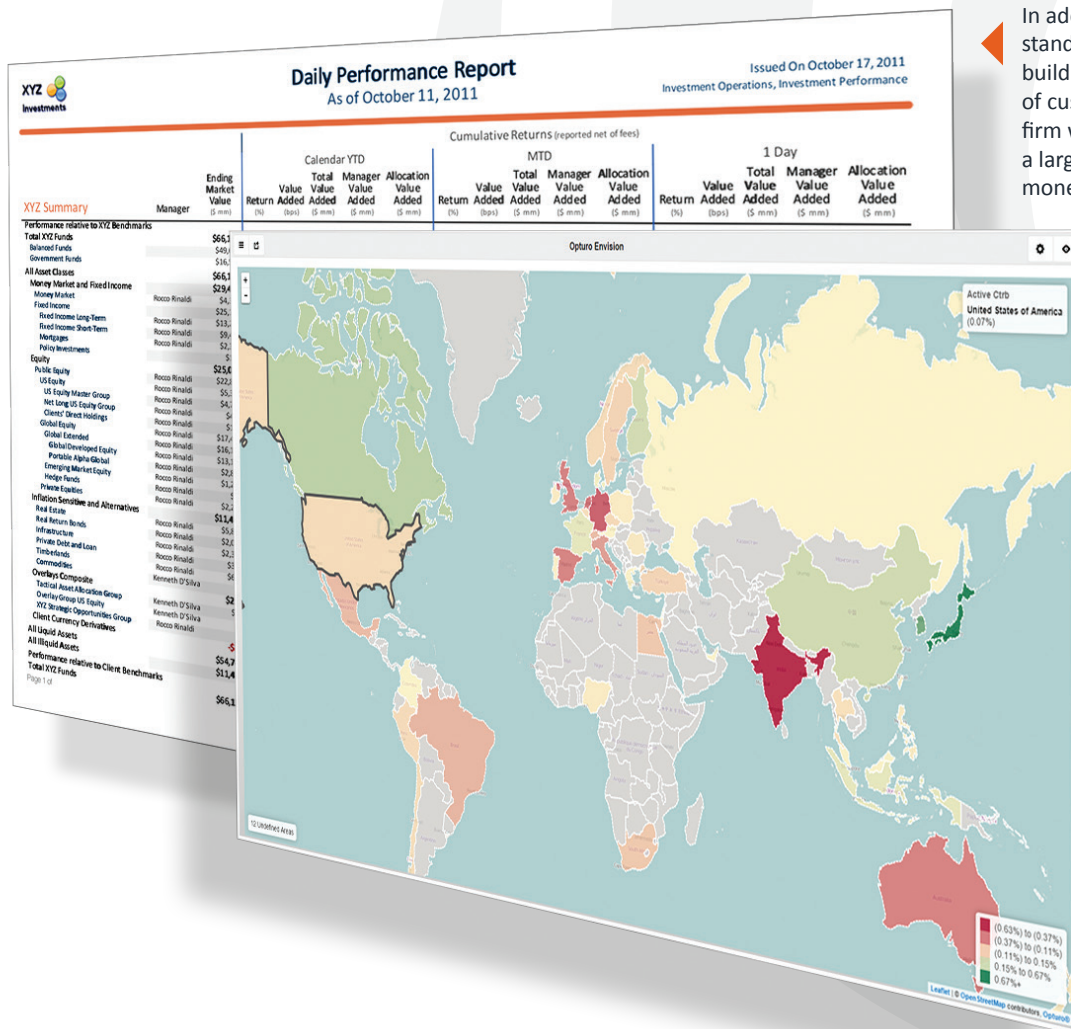
The Opturo platform is not a black box. Our clients enjoy data and calculation transparency, which facilitates rapid data extraction for additional analysis and custom reporting.

While much of the financial services industry has modernized in the computer age, the design and effectiveness of investment statements has been woefully lacking in innovation. The Opturo Envision Reporting engine allows clients to distribute interactive graphics and information to stakeholders.

Customization can be done in accordance with each client's investment process and business logic. Reports like this firm level attribution, broken down by asset class, strategy and portfolio manager is just one example.

Decision Attribution is by its very nature custom to each firm, strategy and portfolio manager. We can provide custom reporting which explains the controllable alpha and risk attributes through time at the portfolio, segment and security level.

In addition to our system's standard reports, Opturo can build and automate the creation of custom reports such as this firm wide attribution report for a large multi-asset institutional money manager

The Opturo Envision reporting engine offers interactive visualization focused on customized business intelligence

Opturo has developed the most flexible, scalable, and comprehensive investment automation platform available in the marketplace.

A key advantage the platform provides is making efficient data management a top priority. This prioritization is reflected in the platform architecture, as the data management engine, VIA (Virtual Investment Analytics), is decoupled from the analytical tools such as Performance & Attribution. This enables end to end customization for clients, as the platform is:

Rapidly implemented – The Opturo platform can be implemented in days or weeks as opposed to the months or years competing platforms require. The direct and indirect cost savings are typically dramatic. There is no such thing as a multi-year or failed implementation costing millions of dollars.

Unparalleled Flexibility – Custom business logic/rules can be easily configured to meet specific analytic and reporting requirements.
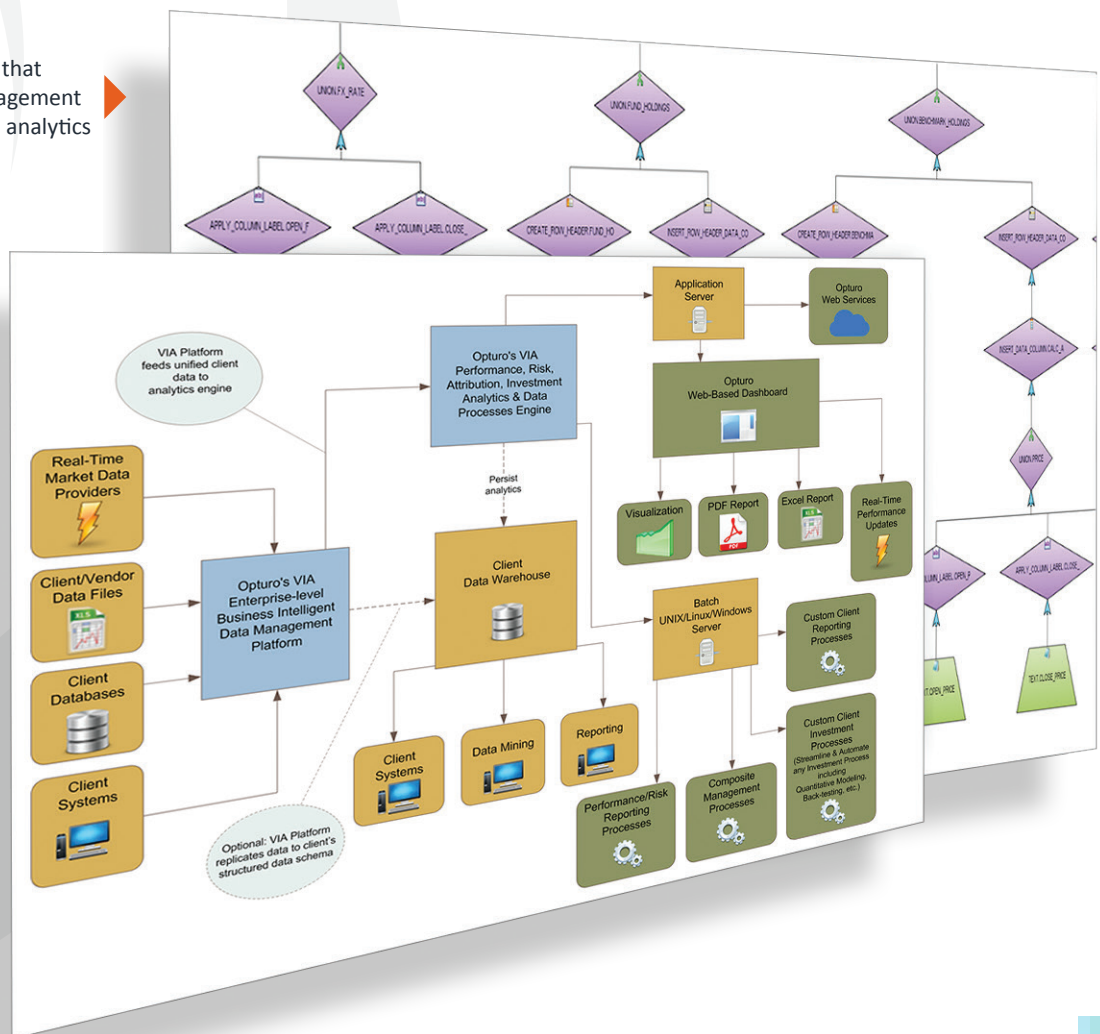
Stateless – No database is necessary or data structure imposed. Calculations and analytics can be done on-the-fly.

Data source agnostic – Opturo does not impose data formats, data structures, or data sources.

End to end customization – Opturo leverages the existing data environment and provides for customized analysis and reporting.

Opturo recognizes that efficient data management facilitates effective analytics

Opturo's transparency and open architecture allows users to build and automate investment processes

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