FinMason: Redefining the Power of Analytics

Website https://finmason.com
Key dates: Founded in 2012
Clients: Financial institutions
Value proposition: Investment analytics as a service
Senior management: Kendrick Wakeman, Founder & CEO
David Remstein, President & COO
Marek Vesely, CTO

FinMason is one of the world's largest and most scalable investment analytics as a service platforms. It calculates more than 700 analytical parameters, covers every publicly-traded asset in the world, and is accessed via a simple yet powerful API, enabling firms to accelerate development and get to market faster.

I traveled to Boston's financial district to meet **Kendrick Wakeman**, founder and CEO of FinMason. We delved into the depths of data—how it's acquired, processed, and eventually used by FinMason engineers.

Kendrick has nearly 30 years of experience working on Wall Street as a senior executive and institutional investor. He received his BA from Dartmouth College and holds the Chartered Financial Analyst designation. Since the '80s, he has approached quantitative analytics from a hands-on perspective, having built systems from scratch when he needed them. The

idle time afforded to him by his retirement in 2012 allowed him to focus on building the analytics system he had always dreamed of, one leveraging modern technologies, which would eventually become FinMason.

FinMason: A simple platform with a powerful engine

Kendrick explained that large institutions tend to use legacy technology infrastructures – ones that are deeply engrained, making them too expensive and cumbersome to replace. These infrastructures, due to their legacy natures, leverage the technologies of their time – technologies that typically aren't as efficient and easy to work with as their contemporary counterparts. Thus, when considering enhancements to their platforms, these institutions often rely on more flexible solutions from third-party providers. With analytics in particular, partnering in this way is often more cost- and time-effective – putting together an entire data science team to source and develop analytics in-house is an enormous undertaking. However, by ingesting FinMason's analytics via a fast and flexible API, firms are immediately able to access institutional-grade investment analytics to use however they like in the development of new features and offerings.

FinMason has developed a proprietary investment analytics engine, The Algonath, and offers access via an API called FinRiver. One unique aspect of FinMason's offering is that it doesn't have a front-end. Firms like **MorningStar, Stat Pro,** and **Bloomberg**, for instance, also deliver analytics, but so via their own custom front-ends. In contrast, FinMason aims to be the "intel inside," powering great fintech innovations while allowing partners to maintain control over their UI, UX, and brand. In terms of speed, FinMason calculations are about 100 times faster than the competition, according to Kendrick. A full suite of analytics on a 50-asset portfolio can be calculated and delivered in less than 20 milliseconds.

> "We had a client that wanted a different fifth factor in their investment model. We did that, got it in production, fully scaled and tested [it] in 48 hours coming through the API. If you went to Bloomberg or Morningstar or BlackRock Aladdin, and said, 'Hey. I want to add a new factor,' probably the very best answer you could get back is 'No.'"

FinRiver, a single RESTful API, is ready to be integrated into any platform. The only information necessary for API calls are (1) the portfolio you want to analyze (positions and weights) and (2) the analytics you want to calculate (700+ available). The requested analytics are returned as a JSON package that can be embedded into investment offerings.

Big data and security

Kendrick informed me that FinMason ingests tons of data. Looking at how their analytics work, this makes sense because they analyze every single publicly-traded investment in the world. This amount of computing requires enormous datasets, which FinMason receives primarily from **IDC**, **Thomson Reuters**, and **Lipper**. As one of Thomson Reuters' larger clients, FinMason has **DataScope**, Thomson Reuters' flagship product, installed onsite. FinMason is one of about 60 firms around the world to have a gold copy of Thomson Reuters' database.

Making the data useful and readily available requires tech know-how; indeed, Kendrick admitted that this is a significant undertaking, but also a significant value-add by FinMason because the data structures are often outdated and the methods of delivery are cumbersome. FinMason thus normalizes and cleans the data it ingests.

> "If another company has a redistribution agreement with a data vendor, we can pass that data through to them in the same easy-to-use API on a normalized basis. It makes sense to consume your reference data through the same pipe that you're consuming your analytics. And it makes especially good sense if that API is a pleasure to use, as opposed to one of the APIs from an older API strategy."

The data that FinMason takes in is void of any personally-identifiable or sensitive information. The only information FinMason's software sees through the API calls is an anonymous portfolio consisting of an array of identifiers and weights. This eye for detail in securing sensitive data has allowed FinMason to quickly satisfy and pass security checks that the big-name firms have in place.

Team structure and communication

FinMason uses a traditional setup, with the exception of a separation of the analytics (data science) and engineering teams. The engineering team consists of developers, database architects, and **Java** programmers, while the analytics team is made up of data scientists boasting a strong command of **R** and **Python**. Although the teams run under separate leadership, they are well-coordinated in everything they do.

The sales and marketing departments at FinMason are fairly small because of the firm's channel partnership strategy. FinMason looks for partners who are either developing WealthTech internally or developing WealthTech and selling it to other customers. This approach primarily results in enterprise-level clients.

Part of FinMason's team is based in Europe. At first glance, it would seem that this would be a problem, but Kendrick and team manage to make it work. The US- and Europe-based teams communicate constantly via **Slack**, **Jira**, **Zoom**, email, and phone calls. Kendrick also mentioned that, because most of the engineering and data validation teams are in Europe, the timezone difference advantageously allows the Europe-based teams to get a jump-start over the US start-of-day on cleaning data and resolving issues.

The internal collaborative environment is bolstered by regular rotations of people from analytics and engineering into sales calls. By sitting-in and listening to conversations with current or prospective clients, engineers may gather useful feedback that can lead to new ideas for improving the offering and client experience.

> "Some [of] our best feature sets have come out of an engineer, or one of the data scientists, saying, 'Hey, you know what? It really seems like this is what they need.' And then us moving forward. One of the great things about being a small company is that we can be very nimble."

Client-driven product management

Kendrick explained that FinMason has a client-driven approach when it comes to prioritizing tasks and projects. The decision to support Canada (Canadian dollar) and Europe (euro) on the FinMason platform was, in part, taken in response to clients'

requests. Kendrick also mentioned that support for the United Kingdom (pound sterling) will be rolled out in the near future.

> "We try not to outguess our clients in what the next big need is going to be. We've had such a gap in the marketplace with our current product that we have a very, very extensive set of projects that clients are asking us to do."

From Kendrick's perspective, listening to clients and assessing their needs is prudent business practice. At the end of the day, clients want to grow their business—and partnering companies need to respond to that. FinMason looks to be on track, as evidenced by their recent #1 ranking in customer satisfaction in the 2018 Advisor Software Survey.

> "If you're really going to be a partner with your clients instead of just a vendor, and if you're really going to be a trusted partner, you need to be listening to what they want, and responding to it. So, rather than dreaming up the next product, listen to what your clients are telling you."

Hybrid product-development lifecycle

FinMason utilizes a hybrid development approach. Most of their development is project-based. Kendrick pointed out that the entire team is good at collaborating and that internal communication is top-notch. This allows them to roll out new analytics in five business days (Kendrick said that they've recently been hitting <48 hours).

> "We're architected to roll out analytics. That was one of our original specs that we had. We have to be able to add analytics very quickly. We can push out a new analytic, test it, and get it into production very, very fast."

Business training for tech-savvy employees

Knowledge transfer is an important aspect in WealthTech. Engineers and analysts should ideally have a running knowledge of the business domain and subject matter so they can make better products for clients. Kendrick informed me that FinMason conducts a formal weekly talk where someone from the business side discusses a certain concept to bring people up to speed.

Kendrick doesn't believe that there is hope for doing a complete knowledge transfer, simply because there is an immense amount of data, but that the culture of continued learning within the firm has helped make both individual team members and the firm more successful. He said the most effective knowledge transfer comes from working in a tight-knit organization, with people working shoulder-to-shoulder. FinMason manages to do this thanks to a cross-pollination between departments. In addition, they have a consulting unit whose job it is to explain how everything operates, how analytics work, where they come from, why they were invented, and why it's better to use one over another.

> "We feel the more the engineers understand about the analytics—number one, they're more comfortable building the product, and two, they're less likely to use an analytic in an invalid way."

Wealth-management trends

Kendrick explained that he sees many trends going on in the financial advisory marketplace, the main one being margin pressures due to fee-compression. To deal with this, Kendrick believes that advisors will have to streamline their workflows and automate anything that can be automated to defend existing clients' fees.

The second trend is a shift toward providing more value on top of solely investment performance. This means that advisors are becoming trusted partners in their clients' lives, not just a source of return. To adapt to this role, advisors need to build more systems, especially financial-planning tools. FinMason recently partnered with **Orion** to launch the "Five-Minute Financial Plan." This is a light, easy-to-use, and interactive financial-planning tool that advisors can use to develop a high-level financial plan with their clients in just five minutes.

Challenges for FinMason

According to Kendrick, the main challenge for FinMason is managing growth. A year ago, there were 12 people in the company – since then, the team has grown to 37. He predicts that, in six to eight months, that number will double. Granted, he highlighted that their business architecture requires a specific kind of employees; specifically, people that can step into a situation, understand what the goal of the collective team is, and then understand what they can do to push that goal forward.

> "Those sort of people are a lot harder to find out there, but we've thus far done a really good job of it. But it's because we've worked so hard at it. And it does take a lot of time. So, mis-executing on that is a risk that I see in my mind. Probably our biggest one."

WealthTech Club takeaways

FinMason is a global leader in investment analytics and is used by many big names in the financial sphere. As a result, the FinMason analytics API is fast, has only one endpoint, and is highly scalable. The sound tech and business practices employed from day one by the founders have given way to expansion of the client base and demand for new features.