

Keeping ahead of the compliance curve is just part of CodeLab's secret **Dan Tudball** reports

CodeLab has been in the business of providing best of breed solutions to clients in the financial services data management and compliance space for over seven years. The Wakefield, Massachusetts firm specializes in custom development and integration, data migration and packaged application creation, with a particular focus on the financial services industry.

David Ritchie, founder and CEO of the firm is in fine form when we speak, waiting to be joined by Stavros Kokkoris of Citigroup with whom CodeLab has worked closely on their Best Execution Consulting Services (BECS) platform. Kokkoris is responsible globally for the operations of the client-facing products for Citigroup equities. The CodeLab story is about striving for quality, and proof that a small committed team can make all the difference where larger firms often fail. Ritchie has long known the ins and outs of making rules based financial systems work, a graduate of Boston College he cut his teeth programming settlement systems.

"CodeLab was founded in 1998; we were a small startup, privately held and our goal was to specialize in financial services, but obviously startups will do anything they have

to do to eat, so we'd wash dishes and so on, but our focus was always financial services." Ritchie explains. "About three or four years ago we started to focus on legislatively based compliance tools, and this was essentially where we started to look at performance measurements, integration between trading systems and we just continued with that model. The model we just released and have been selling for the last four months focuses on D2 which is late day trading for mutual funds and we've been working with Citigroup for two years now on the algorithmic trading platform that they have built



David Ritchie

and which we support."

"We see what we do as a science and there is a scientific process. When we originally selected our name it was a bunch of technology guys trying to learn from what others in our area failed to deliver. We wanted a commitment to consistently deliver quality and a methodology that would reduce the risk to a client of any major failure. When anything depends on meeting a legal code, let's face it there is always a risk. What we do is minimize that risk and keep those failures extremely marginal."

BECS' primary line of business is to aggregate and analyze information on the effectiveness of trades made by brokers acting on behalf of BECS' clients, who include investment fund managers at mutual funds, pensions, and large banks.

These institutions use a wide variety of brokers for execution and these brokers tend to have varying levels of effectiveness for a particular security or type of trade.

The platform's heart depends on the need for automated data aggregation from multiple sources, and for this Citigroup immediately saw quantifiable business value in applying CodeLab's DataScrubber and Transformer (DST). By automating what was a manual process, the DST has increased the accuracy and speed of data analysis, allowing BECS to generate immediate cost savings estimated at over \$300,000 from reduction in personnel, increased accuracy, and more timely completion of analysis.

More effectively scale the business by removing the need for incremental data entry personnel with the addition of each new client. Almost immediately add a variety of new clients, attracted by the speed and accuracy advantages of automated processing.

The DST interfaces with the fund manager's trading system, transforms and channels their data into a database, and accesses a Bloomberg data feed to create a multifaceted comparison of broker effectiveness across multiple markets and benchmarks.

Stavros, what was it that brought Citigroup to CodeLab?

Stavros Kokkoris We had an ongoing relationship from a product that CodeLab had developed in the past, and our partnership has proven very successful. CodeLab has always provided the very highest levels of service. About a year ago we released our Best Execution Consulting Services Platform for transaction cost analysis called BECS doing both pre trade and post trade analysis and we were looking for a company to be able to assist us on the operations side, infrastructure, processing, operations for post trade analytics and trade processing so it's a combination of both technology and business on our end and CodeLab was one of a few companies we looked at including a few very large providers of infrastructure, but nobody was bringing the combination of insight and understanding of the space.

What were your major concerns in terms of getting those analytics out to clients?

SK Well, we did the product development inhouse and the key feature we look at is quality of service, you can't afford any downtime if possible, you always need responsiveness and global support and people who speak the financial services language. We are talking about an investment management community on a global basis.

David, the systems are tailored to take account of legislative developments in order to meet compliance needs, what would you say the main challenges are for CodeLab in terms of developing these kinds of systems for clients?

David Ritchie What we've tried to do is stay ahead of the curve. We've been looking at the various associations that essentially advise the legislative body. In the instance of the Mutual Fund Late Day Trading we looked at the Spark Institute which is an organization representing the interests of retirement investment institutions which congress and the SEC will look at, now congress doesn't aim to make the markets inefficient – we hope – they are looking to protect shareholders and guard against unethical and inappropriate behavior and so they are looking for these bodies to be self governing. We try to get some insight on what those bodies are suggesting and then building a technology which will take the burden of that piece of legislation or mandate the SEC will place on the institutions.

Having to stay ahead of the curve to make sure that when the compliance structure comes in to force you have to ensure you are meeting those requirements from the moment the button is pressed. What's the process like in terms of making the assumptions about what will eventually inform that ruling?

DR There is clearly going to be a mandate to provide a technology solution to cover a piece of legislation very quickly, so in the late day trading case the fallout in the States was pretty swift, pretty severe so we get plenty of calls from various mutual funds looking to implement the software even though the legislation is not yet passed. It's pretty clear what the legislation is going to be and it's pretty clear that they have to do it and do it quickly. We build a solution where we believe there is a clear need, and even if there is not yet legislation we believe there will be. A perfect example is there's a ton of focus on analytics for equities for best execution, but if you look at any given person's portfolio there's a good chance that 40 per cent of that will be in fixed income, why is this focus not also on fixed income? So we built a fixed income product to address that. There's not the same interest amongst banks to police themselves and monitor themselves in that area, so we miss that one, but we have the tools because for the banks fixed income is not as sexy! As a firm that has been our approach from a company culture viewpoint we've always tried to go for top tier clients Citigroup, Thomson

Financial – quality is our differentiator, we don't differentiate on price.

Stavros, can you give us an example of the working process with CodeLab?

SK I would like to give you one example. The software is so great that we hardly had any downtime in over a year; credit must go to CodeLab for that and putting together a very good solution for us. It performs so well that we had seven minutes of scheduled downtime in the whole year. On the client servicing side a typical operation that CodeLab will do will be to provide accounts to our investment managers and communicate with them on the trade processing side. Handling data that we do not see or touch on our end, finally we have recently expanded our relationship with CodeLab to include some custom solutions for specific targeted clients which we did not have the time to do inhouse.

Can you give us an indication as to what areas those would be in?

SK I cannot name the clients, it's on the post trade analytics front, it involves an extension to our existing product BECS targeted for specific clients, a number of reports on the client data that complement our product offering.

Seven minutes of downtime is pretty amazing.

DR The beauty of doing something with someone like Citigroup is that you're able to build an infrastructure that can support – and you can

imagine, Citigroup doesn't know how to do things small – best of breed approaches. As a result you get seven minutes of downtime. At CodeLab if something happens twenty people get paged and we understand the critical nature of the products we support for our larger accounts. When they are down some pretty extraordinary losses can be suffered, we can't tolerate that.

What are your reflections on compliance in terms of the responsibility it places on financial institutions?

SK Compliance is an integral consideration. Information security is the number one consideration internally and externally for Citigroup, we have a 450 page document on procedure and David knows this first hand as he recently went through our internal audit team who were on site they ensure that all is in proper order, and we do that twice a year.

DR There's nothing better for a firm like ours than to go through the process that you do with a firm like Citigroup. It was like going through bootcamp. They hire outside firms to try to deliberately hack into our system, and it's an amazing process, and the fact that we survived it I feel we ought to get a gold star!

SK Well, that's one of the reasons why you have the contract! *CodeLab Technology Group has recently been acquired by Allin Corporation. They continue to operate as a separate business unit and leverage Allin's larger pool of highly skilled resources where required, as well as Allin's deep and longstanding Microsoft relationship*

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