

## CASE STUDY: Financial

Optima Systems, a Dyalog Ltd Application Development Partner, has been working for many years in the financial market place working on a variety of PC and mainframe applications. For one particular client where our applications had been in service for some time there arose an opportunity to automate and streamline some of their manual processes.



Our initial investigations indicated that these manual processes were very time consuming and required a high degree of product knowledge, preventing the use of temporary staff during periods of high demand.

At this time we already had a system in place which would perform some of the expected tasks so we decided to base our new platform on this. This was a PC-based application written using Dyalog.

The overall task was vast and involved the process automation of hundreds of products going back over many years. Since the quantity of information required just to understand the business rules was so great, we adopted an Agile programming methodology.

Each of the various tasks was broken down into easily comprehensible chunks and each programmer worked on his "chunk". The code was written in a way to be modular and easily (or even self) testable - where possible, code was re-used. To speed up the development process not too much effort was spent coding for possible future requirements.

To further speed up the development time we coded most of the business rules whilst sitting next to the business experts. These were people who typically had great knowledge of the products and how they worked but little or none about computers (certainly not the programming of them).

We wrote or coded in a way that related visually to the process notes which already existed and kept the semantic density low so that these experts could get to grips with what we were doing that much faster. These process notes essentially became our specifications and, as no additional paperwork was required, served to get the solution into production even faster.

To our amazement we found that within only a matter of days sitting next to us, these non-programming business experts were not only reading our code but correcting our mistakes! The combination of experienced APL programmers coupled with experienced staff made for an unbeatable combination. Production code was being created at a phenomenal rate - so fast in fact, that the processes that had been put in place by our client to control system releases were too slow and had to be modified so as not to become the bottleneck!



Our team consisted of up to 10 APL programmers and 6 business experts who worked alongside us almost all of the time. Within a matter of weeks of starting the project (days in some cases) we were delivering fully tested, production quality code to the business. Our output was such, and the benefits so great, that we were delivering one or more releases into production each day.

The system in question is in full production use today and, since its introduction in 2006, has produced over 200k policy documents and quotations. Prior to this system's introduction a typical document might have taken 1-1.5 hours of manual effort to produce, check and get right. With the system as it stands this time has been reduced to circa 6 minutes and, when batched, much less than that.

The business has been able to realise very significant savings as a result of this system but not just in terms of money:

- The turnaround is now much quicker, quality and clarity of output better and the re-work rate due to errors vastly reduced
- Since many of the operations are automated, validated and cross checked internally, there is no longer a need for highly trained individuals to run the process. In fact, the training time has been reduced from a minimum of 3 months for a new starter to no more than 1 week. An experienced staff member can be cross-trained in under a day
- The customer experience (from our client's point of view) is much improved
- Because the training requirements have been reduced so much staff can be moved between departments to assist during periods of seasonal or high demand very easily

*We know of no other tool that could have produced such valuable returns to the business so quickly and with so little fuss.*