

A Different Perspective



UKU

Underpins the underwriting with MIS Alea's multi-dimensional modelling.

The client

UK Underwriting Limited is a dynamic specialist insurer based in Leeds, authorised to underwrite almost all classes of business. Because UKU acts as a pure underwriting vehicle, it offers no competitive threat to its business producers in the way that composites often do through their direct sell arms.

The challenge

The Company, part of the Primary Group, needed a forecasting software application to supplement the existing underwriting system.

The current underwriting software employed by UKU, which is essentially a schemes administration and processing system contains no facility to forecast future receipts, earnings and claims of the third party schemes underwritten.

Cumbersome Excel models containing historic data and long-winded formulas are presently managed for each of the schemes to provide this information, and these are obviously growing as the business expands. There are currently around 700 schemes underwritten by UKU so spreadsheet size and system resource limits the number of months and years ahead that we are able to forecast.

UK Underwriting operates almost as a virtual insurer, providing third party intermediaries with capital, underwriting expertise and the legal vehicle to write and administer their own legitimate insurance schemes. The underwriting of these schemes is reviewed by UKU on an annual basis from whenever the scheme inception, and so a long running scheme will have a number of underwriting years or years of account (YOA).

Premium declarations are received from the third parties at regular intervals (generally monthly), and are reported in bulk for that period rather than by individual customer policy. These premiums received are allocated to the relevant YOA and then earned over the number of months to which the underlying insurance relates, such as the period of travel on travel insurance, or the length of cover for warranty business.

For any particular bulk premium received, the earnings can therefore be anything from 1 month upwards, or may be broken down into several amounts for several different earnings periods. There can also be a delay before the earnings begin, as with cash-back schemes which relate to a one-month period in a few years time, or single-trip travel policies where receipts throughout the year tend to be earned during the summer months or the year-end.

Claims declarations of payments and outstandings are also received in bulk at regular intervals during the earnings period, and allocated to the relevant YOA. On certain types of business a profit share repayable to the third party is then calculated as a percentage of the net of earnings and claims for a particular YOA. Negative profit share in a particular YOA can often be carried forward and offset against profit share payable in the following YOA.

The approach

MIS Alea developed a series of models which allowed growth curves to be developed for each scheme. This proved that MIS Alea's business logic engine could deliver moving averages for existing schemes and these averages were themselves averaged to arrive at a smoothed growth % for each scheme. As part of the drive for flexibility these growth patterns were loaded into the Header record for each scheme and an additional flex % was implemented to eliminate wild growth %'s even after the smoothing was applied. Once the growth patterns were established each underwriting measure had a monthly profile percentage built from the available actuals history. This coupled with the Growth factors applied to the previous year's actuals allowed a new forecast number to be spread across all of the relevant periods from the period and year of inception of each scheme.

A current forecast has been implemented so that the actuals are updated in the forecast each month with the remaining periods forecast as per the model growth and profiles.

The header for each scheme contains a number of controllable factors which allow the scheme managers to understand the performance of each scheme.

The results

The model which has been produced now enables a complete reforecast to be produced in under one minute from a change being made. The end users get a level of analysis and flexibility which was totally unavailable to them using their previous spreadsheet models.

Conclusion

Amazing, fantastic!

Implemented Software

MIS Alea 3 User Server

Server Platform

Windows NT
P4 2.5Ghz
2GB RAM

Source Systems

AS/400 Underwriting System

Applications

Forecasting
Actuals Reporting