

Classic Solutions

At the forefront of financial modelling software development

THE COMPANY

Classic Solutions is a specialist software company dedicated to the development and implementation of advanced financial modelling software. Founded by an international group of expert actuarial and software practitioners, Classic Solutions has enjoyed over 12 years of growth and global success in shipping its flagship product, **MoSes™**, to the world's leading financial institutions.

In 2002 Classic Solutions became a part of Tillinghast–Towers Perrin, through the latter's purchase of a majority holding in Classic Solutions. The company continues to operate as an independent software vendor, and has a number of high profile strategic relationships with global and regional actuarial consultancies, including Tillinghast. Through these alliances, clients have the widest choice of **MoSes** support and implementation services, tailored to their own resource and skills capability.

GLOBAL SOLUTIONS PROVIDER

Our success in recent years and our ambitious plans for future growth are centred on our unique core product — **MoSes**. We say unique, because its architecture enables it to be used to model any financial product, in any industry or legislative environment.

More than 100 companies, in over 30 countries worldwide — including leading Life and General Insurance companies, multi-nationals, banks, pension funds, mutual funds and the leading actuarial and strategic consultancies that service them, utilize **MoSes** in support of their strategic business.

TAS Tillinghast Actuarial Software® is the leading financial modelling system in the U.S. and is now part of the Classic Solutions' product offering. Individually and collectively, **MoSes** and TAS offer a complementary and comprehensive toolset that can be deployed across your organization.

From this position, Classic Solutions has set a firm course to become the leading global solutions provider of modelling systems for use across the entire financial services industry. The combined TAS and **MoSes** client base of over 350 companies has already given Classic Solutions the largest presence in the global market.

SERVICE AND SUPPORT

Classic Solutions prides itself on the professionalism of its support and training services. We have received the highest praise from clients for our responsiveness and problem solving abilities, both through our multi-lingual helpdesks and our on-site teams. The scope and level of resources we offer can be tailored to match the client's skills and available resources. Our training services ensure that our clients are able to make the most of their investment in **MoSes**.

STRATEGIC ASSOCIATIONS

To ensure that we provide the highest level of expertise to our clients around the world, we have established a number of highly effective strategic relationships. We want our clients to be able to choose their service provider. So, we work with a wide cross-section of major consultancies. In addition to our relationship with Tillinghast, **MoSes** services are provided by Aon, Ernst & Young, KPMG, Life Strategies, Mercer, NMG and PricewaterhouseCoopers.

Together, we offer our clients the required breadth and depth of financial modelling skills and resources, through comprehensive value-added services and country-specific applications.

MoSes-Defining a new paradigm in financial modelling

GENERAL PURPOSE

Classic Solutions' strategic flagship product **MoSes** is an advanced, general-purpose system for financial modelling, projection and valuation.

From its inception as a system designed to support the Australian "Margin on Services (MoS)" requirements for life insurance, **MoSes** has been developed to help financial institutions achieve a higher level of efficiency, effectiveness and profitability.

Meeting a variety of management analysis and information needs, **MoSes** enables financial services companies, for the first time, to model their businesses across product, territorial and industry sector boundaries.

ARCHITECTURE

Think of the system as an industrial strength spreadsheet package, with two distinct elements — the "system" (the underlying interface and projection engine that defines and runs the model, corresponding to the spreadsheet package) and "applications" (the models containing user functionality, corresponding to worksheets).

DEVELOPMENT PLATFORM

It is this architecture that enables **MoSes** to provide much more than the traditional "do-it-yourself" programming and spreadsheet environment or the "black box" application-specific modelling systems. Users can modify existing applications or develop new ones from scratch to suit the specific needs of their organization, or to cater for unusual or new financial products.

It also allows users to extend their modelling capabilities in-house, by applying system upgrades without model changes or intervention from their software vendor.

USING MOSESTO PRODUCE RAPID RESULTS

MoSes offers a comprehensive range of Life Insurance and General Insurance applications. These enable fast implementation of company-specific models, with easy testing and optimised run-time performance.

OTHER PRODUCTS

TAS Tillinghast Actuarial Software® is a PC-based system previously marketed by Tillinghast, used for projecting financial results related to life, annuity and health insurance products. Its applications include product development and pricing, liability models, asset/liability models and total company models combining separate blocks of business. TAS Model Builder converts liability data for each individual policy into model point or cell groupings. TAS is the market leader in the United States.

Classic Solutions is investing in a significant convergence program to combine TAS functionality with **MoSes**, offering a new Tillinghast Application Suite — TAS — utilizing the capabilities and flexibility of the **MoSes** platform.

COMMERCIAL

MoSes is sold on a simultaneous per-user basis, and its affordable entry price allows for purchase by both large and small organizations. Both developer and end-user arrangements are available.

The annual maintenance fee provides for help desk support and full upgrades to the system. Major system upgrades usually occur once per year, and these new versions of **MoSes** take only minutes to install. Continue to use existing customised applications and keep ahead with the latest functionality!

MoSes - Applications

LIFE INSURANCE APPLICATIONS

Users are provided with ready to use financial models that cover most liability and asset products utilized by insurers around the world. These models are comprehensive and are fully customisable by the user. They cover the full range of applications from pricing, profit testing and stochastic modelling through statutory valuation, U.S. GAAP, embedded value projection, asset liability modelling, analysis of surplus, customer lifetime value and much more.

In addition to the international suite of applications, distinct suites of applications are available for the US, UK, Australian, German, French, Netherlands, Japanese, South East Asian, and Latin American markets.

Alternatively, you may require full multi-state modelling of disability income products; full UK I-E tax and asset share calculations; “rebased” sterling reserves; sophisticated bonus calculation and distribution methodologies within a German context; or binomial lattice methodology to determine the market valuation of callable and puttable bonds. These are all included within the various applications.

Why MoSes?

EASE OF USE

New users become proficient with the system within days by utilizing the comprehensive step-by-step application guide and on-line help. Most users have no special programming skills and typically need to learn less than 10 simple formula language constructs.

FLEXIBILITY

MoSes is purchased by clients such as multinational reinsurers and direct offices for tasks that no other systems can do. The flexibility of the programming language reduces the number of formulae required, making models easy to understand and maintain. There is no in-built preconception about the modelling task at hand. Any aspect of any model can be readily customised.

STOCHASTIC MODELLING

Over 30 random sampling distributions cater to all types of Monte Carlo simulations. Make any asset and/or liability element stochastic. Correlated random sampling supports complex economic models. Obtain statistics, frequency distributions and cumulative frequency distributions for any projected value.

DYNAMIC MODELLING

The unique nature of **MoSes** allows for easy integration of stand-alone asset and liability models into a dynamic stochastic corporate model.

Rather than stopping, starting, saving and restoring results for each model point at each duration, **MoSes** allows you to load all model points into memory, make appropriate stochastic assumptions (economic or decrement), pass cashflows between models and dynamically update assumptions as the system automatically projects the whole model forward in time. This processing takes the same time as traditional policy-by-policy projections. Classic Solutions' proprietary memory optimisation algorithms allow a large number of data cells to be held in memory simultaneously.

You determine the dynamic interaction rules; **MoSes** determines the order of calculation. Linking models in **MoSes** is as easy as linking spreadsheets in Excel.

AUDIT AND CONTROL

The transparency of the data, formulae and assumptions avoids many of the dangers of "black box" modelling systems. There is a wide range of audit and control tools such as the model compare feature, automatic change tracking, drill down and syntax checker. As all tasks can be done within the **MoSes** environment, there's no need to resort to other tools.

All code is visible, but the degree of access can be controlled in order to maintain system integrity.

RAPID IMPLEMENTATION

Object oriented models facilitate re-use of code.

By building models as reusable components you can incorporate any number of asset and liability models, new business and existing business, and multiple economic scenario generators into a single application.

SPEED

32-bit compiled code combined with Classic Solutions' proprietary memory management and speed optimisation techniques, reduces disk activity during the projection, making all forms of modelling quick and efficient.

Master/Worker functionality facilitates distributed processing using any PC on the LAN.

INTEGRATION

Microsoft® COM interface allows users to run **MoSes** models from other systems including Microsoft Excel. Because input and output data use an industry-standard database format, **MoSes** has been integrated with large data warehouses and management information systems.

REPORTING

A range of standard reports is provided and users can create their own using the **MoSes** Excel-like report writer. Detailed and summarized results are available and can be directly accessed from within **MoSes** or Excel with SQL-based querying functionality.

DATA INPUT

Import, validate and combine data into model point cells with the sophisticated cell data file creation module.