RiskAgility Financial Modeler (FM)
Powerful financial modeling for life insurers
RiskAgility Financial Modeler (FM)

RiskAgility FM is a flexible software solution that enables life insurers to run financial models that accurately reflect their company’s products in ways that are easily adapted to their business processes.

RiskAgility FM is built with the latest software technology for enhanced performance and ease of use. The open modeling environment supports accurate calculations today and in the future, as product designs, company practices and regulatory requirements evolve. In RiskAgility FM, modeling functions have been designed so you can easily adapt the system to your way of doing things, rather than forcing your company to conform to rigid software requirements.

MoSes models can be imported into RiskAgility FM, and we offer a number of regional applications and templates for RiskAgility FM to give you a quick start in modeling product types common in various markets (see right, RiskAgility FM: C-ALM). These applications are fully built out with extensive functionality. Use them as is, or tailor them to reflect your company’s distinctive product designs and business practices.

RiskAgility FM and Solutions for Life

RiskAgility FM is part of our Solutions for Life portfolio of integrated software, technology and consulting services — a holistic solution to managing the end-to-end risk reporting process.

For more information on Solutions for Life, turn to page 7 of this brochure or visit solutionsforlife.willistowerswatson.com.

RiskAgility FM: C-ALM

The Central Asset/Liability Management (C-ALM) suite provides a well-structured asset/liability framework for implementing dynamic stochastic projections for profit-sharing business, including monitoring and managing both book and market values of assets. Versions are available for French, German and Italian markets, along with a generic version for other territories within and beyond Europe. These applications provide fully featured modeling templates that enable you to quantify and measure value, economic capital, risk and earnings, and to meet new regulatory demands, such as Solvency II and IFRS.
Why RiskAgility FM?

- Enables your company to deploy sophisticated analytical calculations based on realistic economic principles, thereby improving risk and capital management
- Uses open, transparent applications to help you confidently understand exactly how the calculations model your business
- Flexible software that is easily adapted to your products and business processes to increase productivity
- Employs the latest technology for optimal performance and ease of use
- Includes powerful input management tools to link variables to any external sources, including Excel spreadsheets, text files and databases
- Offers the ability to organize variables into user-defined groups that allow assumptions and projections to be managed easily
- Enables easy set up and management of multiple projections by mixing and matching different groups of inputs, run parameters and output parameters
- Provides flexible organization and orchestration of projections, allowing for dependencies between the projections
- Supports powerful distributed processing in-house with Microsoft Windows HPC, in the cloud with Microsoft Windows Azure or with Willis Towers Watson vGrid – our Software as a Service scalable virtual grid solution designed specifically for use with RiskAgility FM
- Embodies the thought leadership and expertise of Willis Towers Watson

RiskAgility FM’s open modeling environment supports accurate calculations today and in the future, as product designs, company practices and regulatory requirements evolve.

You can use RiskAgility FM for a variety of purposes, including:

- Product development
- Liability modeling
- Asset/liability management
- Reserving
- Market consistent/traditional embedded value
- Pricing of options and guarantees
- Economic capital calculation
- Reinsurance optimization
- Business planning/forecasting
Separation of modeling functions makes the system easy to use, understand and learn.

In RiskAgility FM, we have separated the modeling functions into logical groups. Modelers create reusable objects within these functions that are available throughout the system. This makes it easy to create a modeling process that works well across your business environment.

For example, a modeler can use sensitivity assumptions defined in the Input Manager (Figure 1) to create a series of waterfall projections in the Run Manager (Figure 2) with a few clicks of the mouse.

This separation and grouping of tasks helps you adapt the system to your company’s business practices, which makes everyone’s job easier, reduces the learning curve, and improves model governance and control.

Modeling functions are organized into groups to easily adapt the system to your company’s business practices.

Figure 1. Input Manager showing the expense input page with two assumption sets

![Figure 1](image1)

Figure 2. Run Manager showing multiple sensitivities using the assumption sets from the Input Manager

![Figure 2](image2)
RiskAgility FM uses the Microsoft Visual Studio Isolated Shell. This provides powerful advanced capabilities (for example, IntelliSense, robust compiler and debugger integration) for improved ease of use and productivity, with a modern look and feel. IntelliSense (Figure 3) speeds up coding by providing auto-completion and syntax guidance. The fully integrated debugger offers abundant features to make it easy for the modeler to step through model code and trace calculations, which makes everyone’s job easier, reduces the learning curve, and improves model governance and control.

Modelers will appreciate the fast generate-and-compile capabilities in RiskAgility FM.

Compile errors provide hyperlinks to the code for easy access and editing.

**RiskAgility FM editions**

RiskAgility FM will be available in Desktop, Team and Enterprise editions. All editions run any RiskAgility FM model and offer all of the functionality described above. The RiskAgility FM Team and Enterprise editions include increasingly sophisticated version control, audit, security, governance and scheduling functionality on top of that provided by the Desktop edition. These editions allow you to manage and control models, projections and results across your company.
Provides efficient, scalable distributed processing

**High-performance grid computing in combination with 64-bit compilation enables you to avoid compromises between accuracy and speed.**

RiskAgility FM provides powerful new distributed processing features that deliver actionable results in a fraction of the time of standard distribution approaches. These features allow you to combine multiple projections to define a nested stochastic run, with both the inner and outer loops distributed to the grid to be run in parallel.

With RiskAgility FM, models can be run in your company data center using Microsoft Windows HPC, in the cloud with Microsoft Windows Azure or with Willis Towers Watson vGrid – our Software as a Service scalable virtual grid solution designed specifically for use with RiskAgility FM.

This gives you flexible, scalable options for distributed processing, so you can get precise calculation results when you need them.

RiskAgility FM can produce either 32-bit or 64-bit compilations. The ability to produce 64-bit compilations allows you to utilize considerably more memory for your projection calculation.

**Build and use sophisticated financial models for enhanced risk and capital management**

RiskAgility FM combines the benefits of a modern, open, flexible modeling system that can be readily adapted to your products and processes, with enhanced distributed processing performance and the latest software technology. RiskAgility FM delivers sophisticated financial analytics to run your business better.

**We leverage our experience to bring you innovative solutions**

Willis Towers Watson consultants are active in insurance actuarial committees and working groups, and have worked extensively with clients to provide financial reporting and risk management advisory services. Working with our software experts, these industry leaders have leveraged their experience and knowledge to develop innovative financial modeling solutions.
A holistic approach to the wider risk reporting process

**Solutions for Life**

Solutions for Life is a portfolio of integrated software, technology and consulting services for life insurers that ensures your risk and actuarial processes adapt to meet changing business requirements — enabling you to save time and money, comply with regulatory demands and optimize legacy systems.

It is made up of four main components:

- Best of breed software tools
- Flexible infrastructure
- Integration platform
- World-class advisory and support services

Solutions for Life breaks down barriers, solves problems and provides confidence through accuracy, performance and control by employing industry thought leadership and advanced technology. For more information, visit solutionsforlife.willistowerswatson.com.

**Solutions for Life end-to-end risk reporting process**

Figure 4. How RiskAgility FM fits within the Solutions for Life example end-to-end risk reporting process

<table>
<thead>
<tr>
<th>Policy data</th>
<th>Asset data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleansing</td>
<td>Grouping</td>
</tr>
<tr>
<td>ESG creation</td>
<td>Assumptions</td>
</tr>
<tr>
<td>Assumptions management</td>
<td>Model runs</td>
</tr>
<tr>
<td>Proxies</td>
<td>Capital model</td>
</tr>
</tbody>
</table>

**Solutions for Life tools and platform**

- DataValidator
- Cluster model
- STAR ESG
- Assumptions management utilities
- RiskAgility FM (Standard)
- RiskAgility PM
- RiskAgility EC
- RiskAgility SF
- Emblem
- HPC
- PulseModel
- vGrid
- Azure
About Willis Towers Watson

Willis Towers Watson (NASDAQ: WLTW) is a leading global advisory, broking and solutions company that helps clients around the world turn risk into a path for growth. With roots dating to 1828, Willis Towers Watson has 40,000 employees serving more than 140 countries. We design and deliver solutions that manage risk, optimize benefits, cultivate talent, and expand the power of capital to protect and strengthen institutions and individuals. Our unique perspective allows us to see the critical intersections between talent, assets and ideas — the dynamic formula that drives business performance. Together, we unlock potential. Learn more at willistowerswatson.com.

For more information
Visit: willistowerswatson.com/riskagility-fm
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