

## Expertsoft PM1e - Module Data Sheet

# RISK ENGINE

The PM1e Risk Engine provides sophisticated calculation and reporting capabilities that satisfy customers' increasing demands concerning risk management. In a financial environment with a growing number of complex structured products the component offers comprehensive analyses and simulations.

### Business Case

The financial world is becoming more and more complex. Volatile markets and innovative structured products require new strategies.

A state-of-the-art solution like PM1e is needed to provide the mathematical engines to calculate all risk figures and ratios required for a sophisticated portfolio analysis. Portfolio managers must have the chance to simulate future market changes by using stress tests and other means.

The evaluation and simulation of complex structured instruments and certificates is no longer a topic only considered by treasury departments, but has become an essential part of the wealth and asset management business.

### Key Benefits

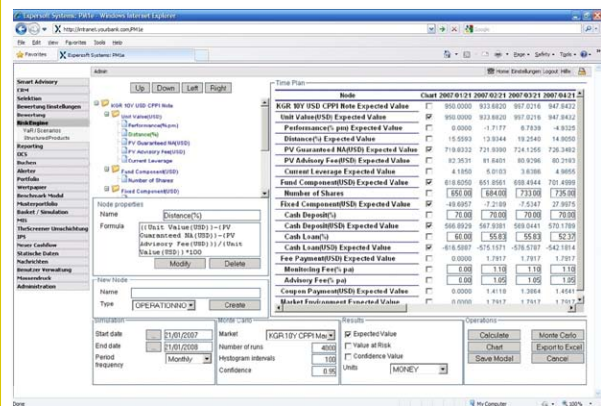
- Meet the risk management requirements of your institutional and high-level private customers
- Inform your customers about the risk involved in their investments and produce reports including stress test results
- Evaluate and compare structured financial products using flexible multi-factor Monte Carlo simulation
- Present the behavior of structured certificates in different market situations to your customers
- Improve your strategies with simulations
- Create sophisticated management reports

### PM1e Risk Engine Modules

#### Risk Engine Basic

Calculate the Value-at-Risk for positions, portfolios and groups of portfolios based on a Var-Cover approach or on Monte Carlo simulations.

Evaluate plain vanilla instruments and standardized derivatives: calculation of fair values based on market information, calculation of cash flows and net present values, calculation of risk related figures such as durations, modified durations, convexities, basis point values, deltas, gammas, rhos, vegas, etc.

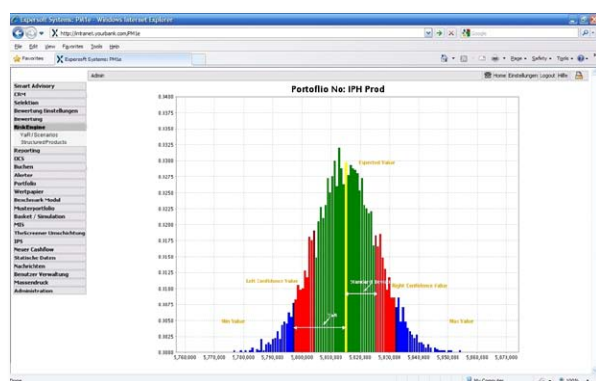


#### Scenarios & Simulations

Define and manage scenarios for interest rate curves, stock indices, and FX rates. Apply these scenarios to positions and portfolios for simulation and stress testing. Compare the results of different simulations.

#### Structured Products

Model complex structured financial products. Evaluate instruments and certificates using a flexible multi-factor Monte Carlo simulation. Define and combine the relevant market factors without any restrictions. Define scenarios for all market factors and apply them to instruments and portfolios. Forecast the performance based on the market scenarios.

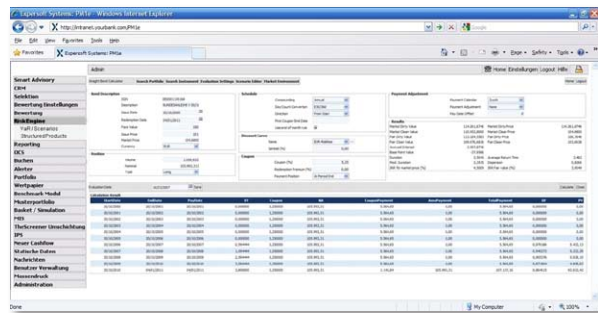
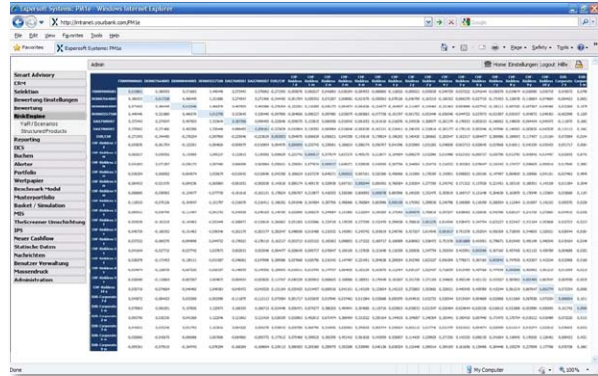


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## Key Features

- Sophisticated stress testing and scenario simulation
- Calculation of key figures for interest linked instruments (duration, modified duration, BPV, IRR, convexity, etc.)
- Calculation of key figures for derivative instruments (delta, gamma, rho, vega etc.)
- VaR calculation using Monte Carlo simulation
- Evaluation of structured instruments (multi-factor Monte Carlo simulation)
- Simulations for structured instruments and certificates
- Forecast calculation based on user defined scenarios



## The PM1e Platform

Expersoft PM1e is a comprehensive and versatile wealth and asset management platform. It provides financial service firms with an unrivaled width of capabilities to analyze, plan, implement and control investments within one flexible, integrated, and easy-to-use environment.

Expersoft tailors the various PM1e components to solutions which precisely meet our customers' requirements in scope and scale and support a truly Straight Through Process from relationship management to investment decision, order management, and financial accounting.

## About Expersoft

Expersoft Systems provides leading-edge software products and services for retail and private banks, family offices, asset managers, brokers, and other financial service firms.

Founded in 1992, Expersoft currently serves over 200 clients worldwide from its headquarters in Switzerland and through its subsidiaries and distributors in Europe, the Middle East, Asia-Pacific and North America.

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