



CRISAM[®] Scenario Analysis Module

The CRISAM[®] Scenario Analysis Module supports Monte Carlo simulations for precise aggregation of many thousands of actually possible scenarios and a simple analysis of simulation results.

Key features and benefits

- Supports Monte Carlo simulations for precise aggregation of thousands of actually possible scenarios.
- Seamless integration of Palisade @Risk, the leading provider of Monte Carlo simulations.
- Includes Palisade licence.
- Includes an integrated results analysis for straightforward evaluation of simulation results.
- Contains concise reports and key figures such as VaR, CVaR, RORAC, RAROC, expectancy-value, P1-P99, etc.
- Available in German and English.

Background information

The scenario analysis is an indispensable part of every decision. We are consistently challenged with uncertainties, ambiguities and changes. Even though we can access more information than ever before, we cannot predict the future with certainty. However, Monte Carlo simulations and the resulting scenario analyses enable you to get a grip on all possible decisions and their corresponding results. Opportunities and risks can be evaluated and therefore the best decision can be found even in an uncertain environment. Depending on the applied evaluation method, two different modelling and aggregation methods are used.

Aggregation with fault tree analysis

In many situations the risks of the entire system result from the interdependent character of the individual systems. IT services, for instance, are provided through interrelated systems such as computer networks, server systems, buildings, data centres and IT service processes. Thus, overall risks can only be evaluated by taking into account the interdependence of the individual systems.

For representing a system with its components and objects in a model as realistic as possible and for facilitating its evaluation CRISAM[®] uses fault tree analysis, which is known from DIN 25424. An IT service is, for instance, evaluated at the very root of the fault tree. For this purpose, the systems required for proper functioning are mapped in a step by step manner and evaluated through questions integrated with the knowledge packs.

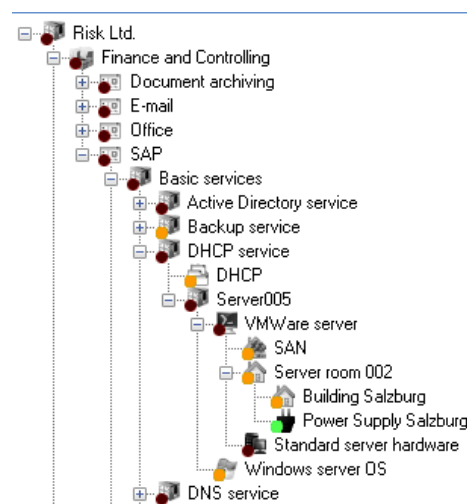


Figure 1 - Part of CRISAM[®] modelled fault tree

Thanks to the modelling in tree structure and the distributions inherent in the knowledge packs the risks are aggregated and the statistical evaluation is carried out by Monte Carlo simulation. Thus, the following questions can be answered:

- What is the IT risk in monetary terms?
- Which business process has the highest IT risk?
- Which IT service causes which monetary IT risk?



CRISAM® Scenario Analysis Module

Aggregation with scenario analysis

In addition to the cause and effect modelling of technical and organisational systems, CRISAM® provides a scenario analysis module: a method for quantitative analysis of business process risks based on Monte Carlo simulation.

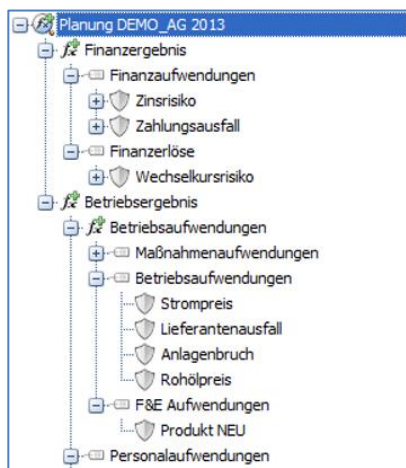


Figure 2 - Part of CRISAM® modelled business logic

CRISAM® Scenario Analysis produces task-specific calculation trees which represent profit and loss accounts, business plans or project planning. The opportunities and risks are linked to the business logic and the extensive, quantitative evaluation is performed using the Monte Carlo method. That way, the following management questions can be answered:

- How likely is a certain profit or loss?
- How reliable is the planning?
- How high is the value at risk?
- How high is the return on risk-adjusted capital (RORAC)?

Cost-benefit analysis

The cost-benefit analysis, which is also part of the scenario analysis module, compares the costs of measures to reduce the expected risk value with the corresponding expected benefit. That way, it can be accurately calculated when the measures make economic sense.

Straightforward analysis of simulation results

For analysing simulation results there are graphical display capabilities and tabular views can be generated as well. Thus, the comparison of the desired and quickly accessible performance measures with results from previous simulations is made easy. The following graphical display capabilities are included:

- Distribution (histogram)
- Box plot
- Trend line
- Sensitivity
- Portfolio analysis
- Risk inventory

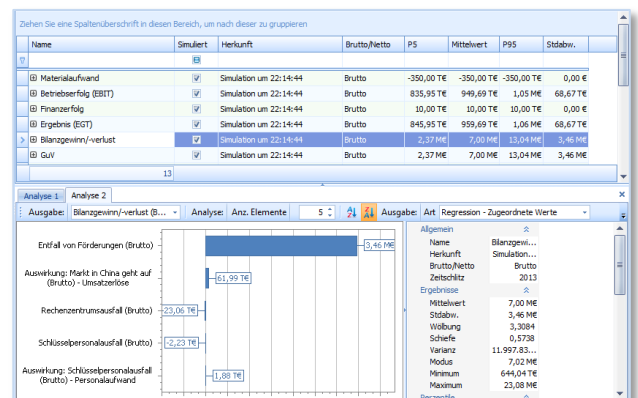


Figure 3 - Graphical display capabilities

The integrated analysis functions are currently only available when using the modelling version “business model” or “risk inventory”.

Management reporting

The CRISAM® Scenario Analysis Module provides the risk manager as well as the CIO and CEO with facts and data in connection with the aggregated corporate risk. This information can be used as a solid basis for capital budgeting. The analysis result is displayed in a graphical and tabular view. The data can be exported into Excel and therefore further processing of the information by means of company-specific spreadsheet applications is guaranteed.



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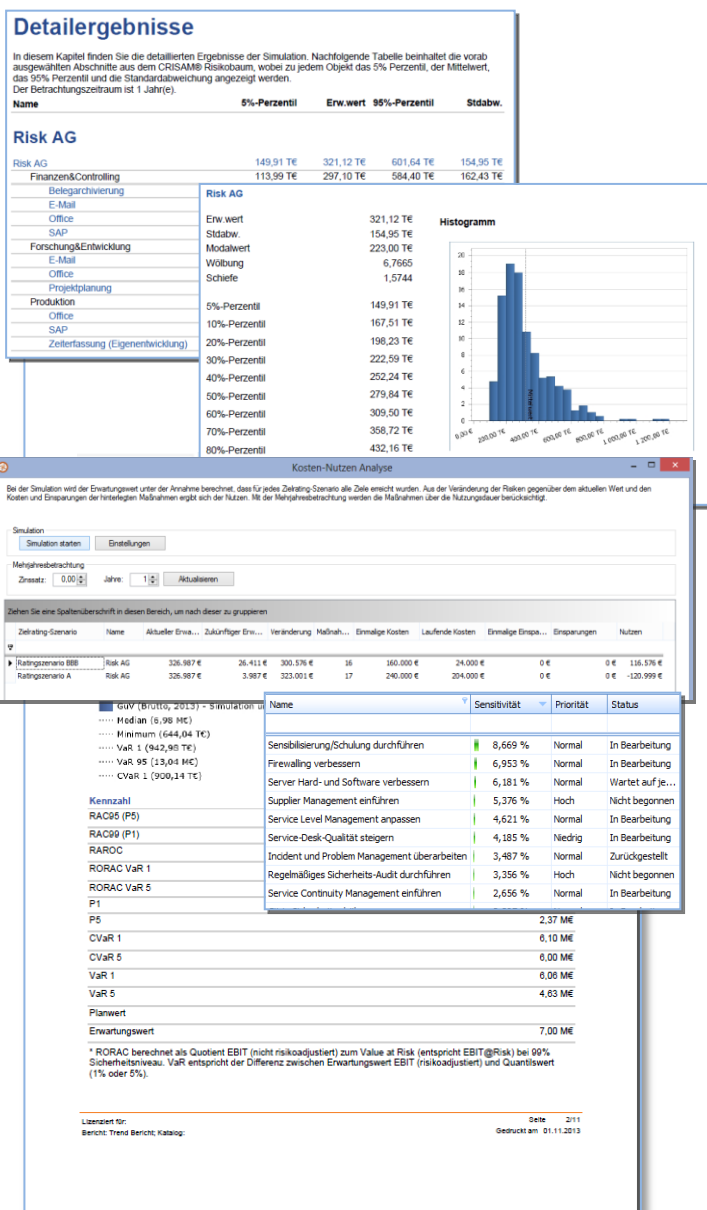


Figure 4: Reports for evaluation

System requirements

Supported operating systems:

- Microsoft Windows XP Service Pack 3
- Microsoft Windows 7
- Microsoft Windows 8

Required software:

- Microsoft .NET Framework 4.0
- CRISAM® Explorer

Ordering information

CRISAM-SAM-1	CRISAM® Scenario Analysis Module, 1 Named User LTU
CRISAM-SAM-5	CRISAM® Scenario Analysis Module, 5 Named User LTU
CRISAM-SAM-10	CRISAM® Scenario Analysis Module, 10 Named User LTU