

zeb/

zeb/**operational.risk-manager**

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Managing and monitoring operational risks

oprisk

# zeb//control –

## Increasing earnings, managing risks

An efficient management of financial service providers requires flexible information, planning and analysis tools. The zeb//control product range provides the technical support for managing a multitude of financial controlling, risk measurement and monitoring, accounting and value management tasks.

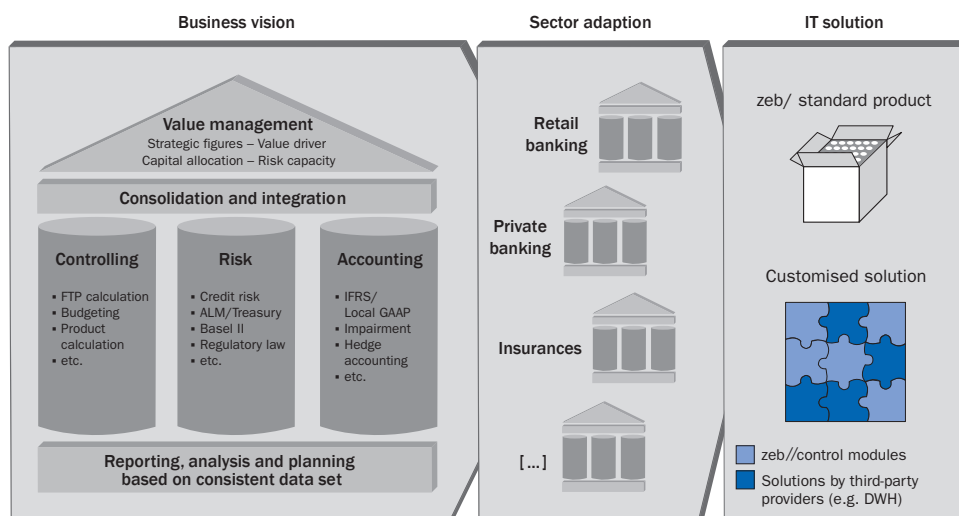


Fig. 1: Functional and technical zeb//control framework

Today the functional challenge – in addition to the required methodological excellence in sub-areas – consists of the consolidation of financial figures across functional areas and strategic business segments. The requirements resulting from various business models are covered by industry-specific adaptations.

In order to ensure flexible and sustainable applicability in this complex context, the technical realisation of zeb//control is based on the SOA principle. The user can define the product range configuration and the standardisation of individual modules freely, enabling a fast integration in existing IT architectures.

The various zeb//control configurations prove to be efficient in daily applications in a multitude of innovative nationally and internationally operating banks. The close interaction of functional and technical expertise is a key success factor for all implementation projects.



## zeb/operational.risk-manager – Managing and monitoring operational risks

Operational risks can have far-reaching consequences so that their management is vital for economic reasons and justly regulated under Basel II. The zeb/operational.risk-manager offers an integrated and transparent approach for operational risk management. In zeb/ you have an experienced partner with a great variety of project references for the functional design of economic and regulatory OpRisk management and its IT implementation.

Generate direct benefits from risk management: The higher internal risk awareness brought about by the system's introduction can decrease the probability of risk events and a more transparent planning of measures can reduce the damage caused by loss events, which has a direct effect on profitability. In addition, you indirectly benefit from a substantial increase in process quality and the mitigation of serial risks. Finally, this allows you to raise the reputation and value of your enterprise.

With a view to the cost-benefit ratio and efficiency, the software to be introduced has to be easy to use, customisable to your specific requirements and oriented to management needs. The zeb/operational.risk-manager ensures an easy launch and gradual enhancement of operational risk management.

In detail, the zeb/operational.risk-manager supports you with the following functionalities and features:

### Risk assessment

Operational risks are systematically covered and their probability of occurrence and the resulting losses can be assessed in quantitative as well as qualitative terms. The system supports you in performing the self-assessment and provides you with a structured environment for data entry and management.

### Planning and management of safeguards

You can easily record proactive and reactive safeguards taken to prevent risk or reduce losses as well as responses to loss events designed to minimise losses. In scenario analyses, the safeguards planned can be assessed on the basis of cost-benefit criteria.

# Risk indicators

By developing bank-specific risk indicators, an early warning system can be set up that allows you to detect negative developments at an early stage by defining tolerance thresholds. Furthermore, an integrated risk management approach is applied that includes the transparent representation of proactive and reactive safeguards provided against risks, of the responses to them as well as the potential damage and serial risks related to them.

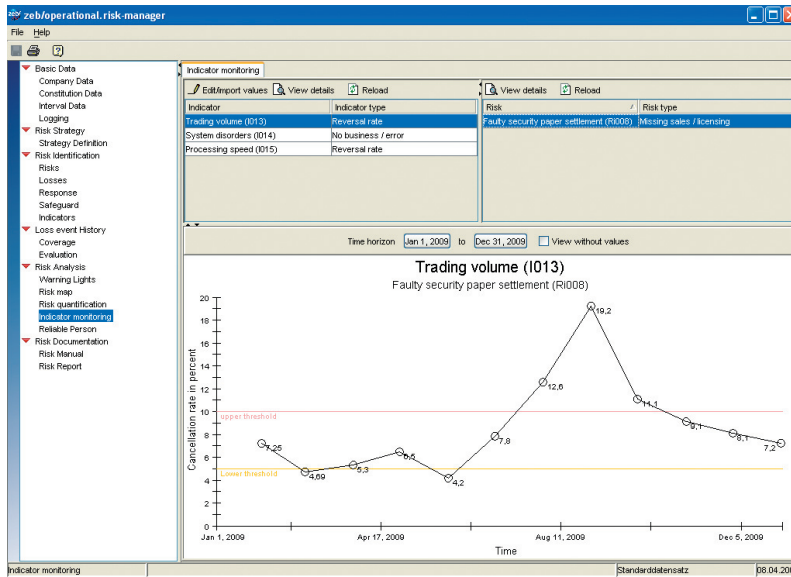


Fig. 2: Risk indicators

# Loss event database

In a systematic database on loss events and serial risks, losses are grouped by their causes to provide you with a clear overview: either in line with the Basel-II-compliant classification included in the software or in line with bank-specific categories.

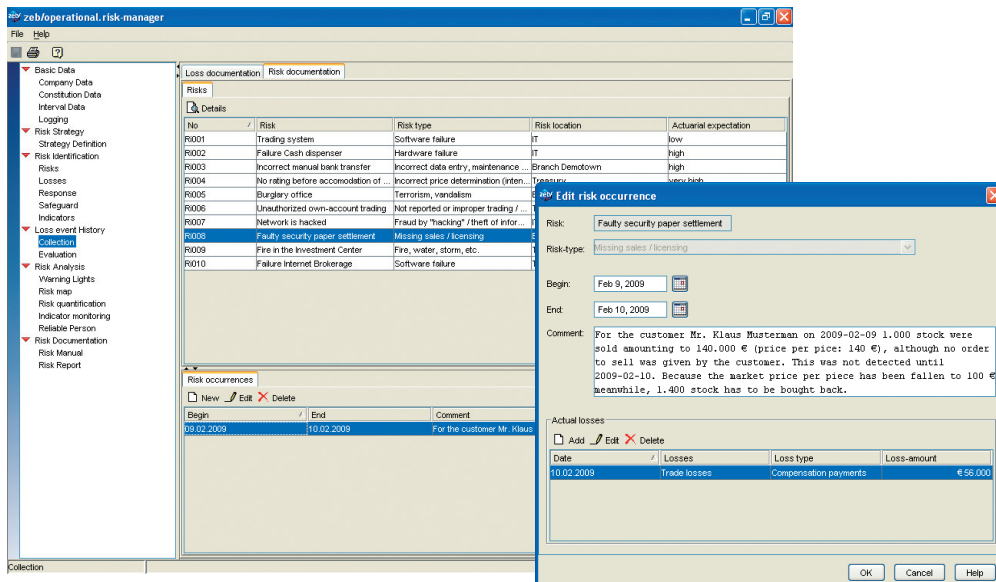


Fig. 3: Loss event database

# Risk analysis

Management-oriented analyses give you a quick but comprehensive overview of risks. You can easily generate standard and ad-hoc reports in line with the needs of specific target groups, for example for individual business lines or risk types.

No.	Name	Risk type	Chief liable entity	Risk location	Actuarial expectati...	Sum losses (...Quantified risk...)
R001	Trading system	Software failure	IT	IT	0,20	850.000
R002	Failure Cash dispenser	Hardware failure	Schreiber, Georg	IT	0,65	550.000
<b>Loss-events</b>						
No.	Name	Loss type	Loss amount (€)	Time lag		
S002	Lost fees	Actual	550.000	2 month(s)		
<b>Summe:</b>					<b>€ 550.000</b>	
<b>Consequential risks</b>						
No.	Name	Time lag	Actuarial expectation			
R003	Incorrect manual bank transfer	1 day(s)	0,40			
R003	Incorrect manual bank transfer	Incorrect data entry, maintenance or storage	Branch Demotown	Branch Demotown	0,65	40.000
R004	No rating before accommodation of a loan	Incorrect price determination (intentionally)	Richter, Angela	Treasury	0,90	55.000
R005	Burglary office	Terrorism, vandalism	Branch Demotown	Branch Demotown	0,20	250
R006	Unauthorized own-account trading	Not reported or improper trading / business transactions (intentionally)	Richter, Angela	Treasury	0,06	250
R007	Network is hacked	Fraud by "hacking" / theft of information	Schreiber, Georg	IT	0,06	550.000
R008	Fraud by security paper settlement	Missing sales / licensing	Wick, Markus	Branch Demotown North	0,20	55.000
R009	Fire in the investment Center	Fire, water, storm, etc.	Board	Treasury	0,06	550.000
R010	Failure Internet Brokerage	Software failure	Treasury	Treasury	0,06	250
<b>Summe:</b>					<b>€ 2.650.752</b>	<b>€ 674.568</b>

Fig. 4: Risk analysis through risk quantification

In addition to this quantification, the expected loss potential – taking account of risks, losses and safeguards – can also be presented in graphical form: in risk heat maps and by means of risk “traffic lights” indicating the status of individual loss categories. Additionally, you can conveniently create a dynamically filled, non-modifiable risk manual that satisfies audit compliance and legal documentation requirements.

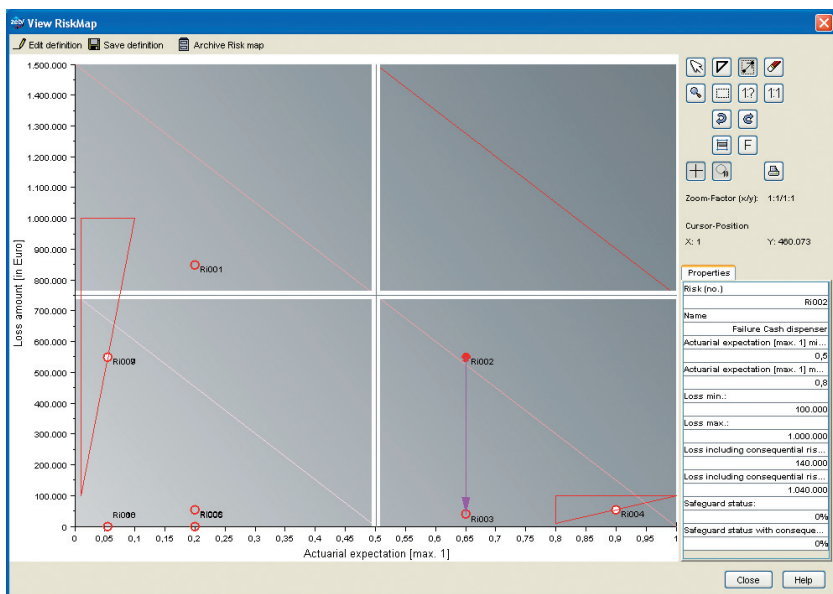


Fig. 5: Risk analysis by means of risk heat maps

## Technical basis

zeb//control uses a modular and scalable architecture that can be easily integrated into existing processes and system environments. The package includes an extensive user rights management system that allows assigning clear responsibilities for risk management and ensures the personalised utilisation of the software. Based on a modern front-end, users can work efficiently and administrators can guarantee safe operations. Import and export interfaces facilitate the system integration.

## Our methodology

The introduction of zeb//control is based on our proven customising approach model that includes all administrative and operative project management issues. In addition, our project committees ensure that our clients are always perfectly informed about the project status. The overall introduction process includes our independent and certified quality management. The competent zeb/ support staff is of course available for further questions even after the completion of the project.

## Your advantages at a glance

- With zeb//control, you use a controlling system based on integrated and consistent data that supports you in all bank-wide risk management, Basel II and IFRS issues.
- By using the zeb/operational.risk-manager, you can efficiently identify operational risks and manage them comprehensively.
- The flexibility of zeb//control enables you to easily adapt reports as well as structures according to your institute's individual requirements and to existing concepts.
- The modular zeb//control structure allows for an optimised alignment to specific conditions and the integration into existing processes and IT system environments.
- You use tailor-made software solutions offering a holistic solution through the combination of state-of-the-art technologies with cutting-edge know-how.
- You benefit from competent consulting based on long-term experience in developing and implementing business-critical applications for financial service providers.

# zeb//control –

## Increasing earnings, managing risks

**zeb//control compass** – Optimising strategy, increasing business success

- Value-oriented top management reporting across all functional areas
- Value-driver simulations and planning incl. cause analysis
- Focus on strategic figures (e.g. RORAC, TSR, etc.)

**zeb//control profit** – Precise profitability management

- Transparent and customisable return presentation
- Extensive and practically proven standard reporting
- Ex ante and ex post calculation of all contribution margin levels

**zeb/integrated.bank-planner** – Centralised and decentralised planning

- Integration of market division and central planning
- Comfortable support of top-down and bottom-up processes
- Automated proposal and allocation of plan values

**zeb/credit.risk-manager** – Identifying risks, optimising profit

- Analysis of the portfolio structure
- Optimisation of the risk/return structure
- Flexible scenario analyses

**zeb/integrated.treasury-manager** – Improving net interest income, planning actions

- Integrated present-value- and period-oriented ALM
- Comprehensive action simulation
- Structural liquidity planning

**zeb/portfolio.risk-manager** – Actively managing and assessing risks

- Compliance with legal trading requirements
- Position keeping and VaR measurement
- Integrated real-time limit system

**zeb/basel.II** – Ensuring regulatory compliance

- Coverage of standard and IRB approaches
- Loss data base with default management
- Interface to common reporting systems

**zeb/operational.risk-manager** – Managing and monitoring operational risks

- Systematic capturing of loss data
- Risk measurement by self-assessment
- Risk indicators as an early-warning system

**zeb/ifrs** – Meeting regulations confidently

- Categorisation, valuation and posting of all transactions in line with IAS 39
- Impairment for all types of IFRS value adjustment, including unwinding effects
- Cash-flow und fair-value hedge accounting

**zeb//control warehouse** – Creating an uniform database

- Uniform and consistent database
- Open architecture for flexible extension and integration
- Automatic identification of faulty data in plausibilisator

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