



ABACUS/RiVa Modules for Evaluation, Simulation and Reporting

The ABACUS/RiVa modules expand the regulatory focus of the ABACUS Solution Suite with applications for internal risk management.

They are ideally suited for the organization and preparation of the **data streams for regulatory reporting requirements**. In addition, solutions for calculating the **market price, liquidity and credit risks** have already been proven, having been successfully implemented by customers for many years. These systems and their associated **simulations and analysis tools** are continuously expanding, e.g. for Quantitative Impact Studies and other new requirements.






Benefits of ABACUS/RiVa

- Streamlined, customized solutions
- Highly flexible
- Economical solutions
- Short project running times
- Automated procedures
- Operation and revision security
- Security of investment

Application Areas for the ABACUS/RiVa Modules

As a matter of principle, the ABACUS/RiVa application essentially provides for all of the **risk, simulation and evaluation** calculation tasks. Its range includes standard products to exotic derivatives, from simple valuations to complex metrics.

FIGURE 1: OVERVIEW APPLICATION AREAS

 Liquidity Risk	 Market Price Risk	 Credit Risk	 Pre-Processing for Accounting	 Pre-Processing for Reg. Reporting
<ul style="list-style-type: none"> • Generation of the contract contingent cash flow • Notional schedule • Interest Maturity Statement (ZBB) • Liquidity Gap Analysis (LAB) • Stress tests 	<ul style="list-style-type: none"> • Valuation modules • Monte Carlo and historical simulations • Interest rate risk for the banking and trading book • Stress scenarios • Value at Risk (VaR) • Expected Loss • Fundamental Review of the Trading Book (FRTB) 	<ul style="list-style-type: none"> • Probability of Default (PD)-adjusted evaluation • Credit Value Adjustment (CVA)/Debt Value Adjustment (DVA) • Monte Carlo and analytical Credit Value at Risk (VaR) • Assessment of loans 	<ul style="list-style-type: none"> • CVA/DVA including collateralization and netting • BFA3 loss-free valuation of interest-related businesses of the accounting book • Fair Value of real estate loans 	<ul style="list-style-type: none"> • Optimization of the interest rate risk • Calculation of measures (Greeks, Duration, Exposure at Default (EAD), PD, CVA/DVA, cash flows, 2-leg-approach, FRTB) • Standardized interfaces to ABACUS/DaVinci

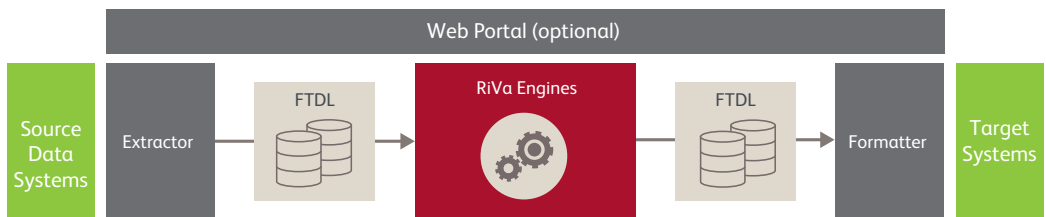
The Functional Principle of an ABACUS/RiVa Solution

The ABACUS/RiVa solution works very simple and is based on a stable, secure and auditable design. By encapsulating functionality and the resulting modular structure, new functions can be integrated easily.

Extractors automatically obtain data from the source system, which are then converted into the Financial Transaction Description Language (FTDL). FTDL is an XML-based, highly efficient and simple data format for the structured mapping of all financial instruments. Various analytical functions to enrich the

FTDL format files with the technical information they require are encapsulated in the **flexible, combinable ABACUS/RiVa Engines**. This leads to lean, customized and task-specific solutions. The results are available centrally to all those who are interested. Stand-alone formatters serve the desired target formats, from standard systems (such as SAP or ABACUS/DaVinci) to individual reports. The usage of the ABACUS/RiVa **web portal** also makes perfect sense if an interactive environment is desired to enter any missing data, or for particular management and analysis needs.

FIGURE 2: ARCHITECTURAL SKETCH



Flexible Integration and Expansion Options

ABACUS/RiVa solutions provide flexible application possibilities, based on their modular structure. Functional gaps can be easily closed through encapsulated engines. Every individual group of functionalities (for example, evaluations or CVA calculation) can be attached according to customer-specific needs for their existing source systems and the calculated data will be delivered to its necessary destination. Should a customer require an additional functionality, the ABACUS/RiVa environment can be extended to include the necessary, additional module. The implementation benefits from the already established data-interfaces and builds upon the previously introduced ABACUS/RiVa elements. Therefore, this continuously progressing, complex bank management formation, easily facilitates the swift adoption of special expansion applications to achieve comprehensive solutions. The ABACUS/RiVa-based architecture for overall bank management enables users to respond quickly and flexibly to changes in either regulatory or internal requirements, as currently required elements can be adjusted and new components can be added easily.

Managed Services Offer for ABACUS/RiVa

BearingPoint also offers ABACUS/RiVa in the framework of Managed Services, which is the provision of services related to the software operation. The outsourcing of infrastructure services, application management and application support can thereby be customized according to customer requirements. Customers are assigned a BearingPoint contact person with functional and technical expertise, as well as flexible access to external specialist expertise. Major advantages of Managed Services include easily calculable costs and the possibility of significantly reducing the burden upon internal IT departments.

Outlook

ABACUS/RiVa solutions are immediately operational and have already been successfully implemented in individual combinations by leading financial institutions for more than 15 years. ABACUS/RiVa functionalities will gradually be integrated into the new platform with the introduction of the next ABACUS generation.

About BearingPoint

BearingPoint consultants understand that the world of business changes constantly and that the resulting complexities demand intelligent and adaptive solutions. Our clients, whether in commercial or financial industries or in government, experience real results when they work with us. We combine industry, operational and technology skills with relevant proprietary and other assets in order to tailor solutions for each client's individual challenges. This adaptive approach is at the heart of our culture and has led to long-standing relationships with many of the world's leading companies and organizations. Our global consulting network of 9,700 people serves clients in more than 70 countries and engages with them for measurable results and long-lasting success.

www.bearingpoint.com

Selected Product Features

- Mature data modelling language for the mapping of commercial financial products and their derivatives
- Software modules for evaluation, stress and simulation of financial products, standard approach for market risk and the generation of cash flows
- Convenient web front end for optional interactive management

Contact

Dr. Werner Gothein
Partner
werner.gothein@bearingpoint.com

BearingPoint
Software Solutions GmbH
Speicherstrasse 1
60327 Frankfurt
Germany

Marketing/Sales:
abacus@bearingpoint.com
+49 69 567 007 910

www.bessgmbh.com