

solutions for derivatives

riskart

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riskart® is a software solution for Middle to Back Office operations in the financial services and corporate industries. It offers a range of services to effectively manage administrative and accounting activities related to financial contracts.

riskart® provides integrated and customizable operational support to manage OTC derivatives, regulated derivatives, cash flow instruments, and futures and options contracts.

financial services

riskart® is a vital tool for asset managers, banks, investment management companies and the finance departments of companies as it increases the effectiveness in managing and monitoring any financial portfolio.

diverse solutions

riskart® software provides a range of specialized solutions to a diverse range of institutions in the global financial services industry. It can be used by

banks, traders, investment companies, asset management firms as well as industrial groups. riskart®'s flexible and modular technology is an essential instrument in the world of derivatives where new products and developments keep emerging.

history

riskart® is based on the experience gained with FOSWin®, a product created by the parent company Tomato Financial & Treasury Services SA., one of the first software solutions in Italy geared to the needs of corporate treasury as well as currency and interest rate risk management processes.

technical aspects

riskart® was created to run on various operating systems (Linux, Unix, Windows, etc.) and can be used with various relational databases (Sql, Oracle, DB2, etc.).

The software is 100% web based.

the product

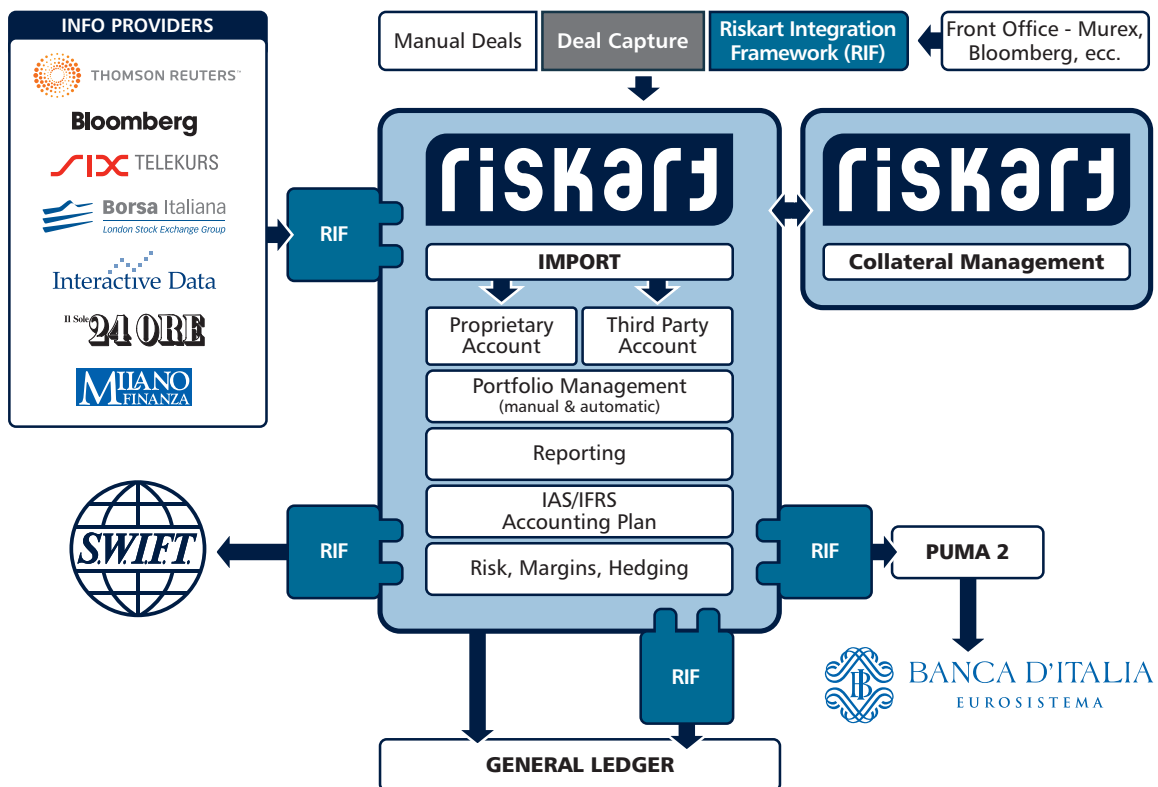
the product

All application solutions are based on riskart®, which consists of different integrated and highly parameterizeable software modules. riskart® is a complete software solution for the management of financial services. The application was created with a scalable and flexible platform that can easily

be adapted to the user's specific needs, with no need to develop new code.

Customization is simple and quick.

In addition, riskart S.p.A. provides complete technical support via its network of consultants.



the product

the product / **functionality**

The product's modules, or "engines", let the user manage:

- Various types of data registry;
- All types of financial contracts ranging from deal capture functionalities to Back Office and Accounting;
- Automatically generated accounting records based on the specific requirements defined by the user. These records can be exported to the accounting systems used by the Client;
- Regulatory notification required by the supervisory authorities and information for settlement systems;
- Reporting according to the most advanced business intelligence products;
- Highly flexible customization with parameter functions that do not require new programming.

Contract engine

riskart® provides a single contract engine that can be parameterized to manage

regular contracts as well as derivatives and structured contracts and has an analytical approach to the management of cash flows and quantitative flows (securities, underlyings, etc.). This allows the consultant or the expert user to easily introduce new financial instruments into the system in a highly customizable way, thus extending the solution's reach to any types of contracts.

Wizards

"Wizards" help users to manage a wide range of activities including all operations in terms of stock options (management and valuation), futures trading (margins and compensation) and cash flow plans.

Securities engine

With the Securities Engine, users can register any type of financial instrument without any limits on the number of fields.

the product / **competitive advantages**

No matter what specific financial software solution you are looking for – riskart® is the answer.

Flexibility and versatility are the primary features of riskart®.

Its innovative platform allows precise and complete control and management of all financial contracts. Actually, riskart® makes it possible to customize accounting structures related to this type of contract.

And these are just a few of the most relevant characteristics of riskart®!

The product is also:

Created to manage changes

riskart® features a series of functions specially designed to manage a wide range of current and future market requirements, with no need to alter the code. Any modification in the system is immediately assimilated into the software

the product

as if it were one of the original functions of the solution.

riskart® is able to manage a huge variety of financial contracts, from spot contracts on shares and currencies to plain vanilla and structured stock options and swaps.

riskart® can also manage a wide range of securities (equity instruments, debt securities, structured securities, financial deposits, etc.). The application is compliant with current regulations and, thanks to its flexibility, it can quickly and economically absorb any possible adaptations to new laws, highly probable in times of intense regulatory activity.

Information sharing oriented at user level

riskart® is information sharing oriented at any user level. Regardless of whether users opt for proprietary trading or act on behalf of a third party, the various user groups can access all information (contracts, situations, positions, etc.) created by the operator in real time and tailored to their specific needs, because they have local access to information for any further processing through office automation tools (Microsoft Office, Lotus, StarOffice, etc.).

riskart® can interface with other applications (an XML file creation module is available) and can import market data from any data provider such as Reuters or Bloomberg.

100% web based

riskart® was designed and created for a pure HTML interface. From data entry and reporting operations all the way to customization, any riskart® function can be carried out on any web browser (Internet Explorer, Safari, Firefox, etc.).

Business Intelligence compliant

riskart®'s reporting module makes use of MicroStrategy®, a business intelligence tool that allows the use of advanced user-oriented data management functions in the reporting process.

Modifying, creating or eliminating a report model is possible without any impact on the underlying data structure. Some structures can be modified without updating the report models already created.

This enhanced versatility allows the user to focus exclusively on the creation of new models without having to worry about any software limitations.

Other business intelligence software can be easily integrated into riskart® by sharing existing database and data structures.

Safe

Critical data are managed exclusively by dedicated applications. There is no risk of interference with other processes.

In addition, any intervention is monitored and registered in log files. The original data that has been modified or deleted by the users can be recovered at any time. All system data (operational and customized) are located on a relational database, which allows for a simple back-up and recovery process.

Finally, DataMart contains an incremental redundant copy of the original data. It represents a triple safety level to exclude any probability of an irrevocable loss of data.

Multi user/profile

In order to guarantee an efficient control of all issues concerning internal safety, it is possible to create a series of user profiles.

the product

riskart® features a specific profile management function tailored to the Client's specific needs.

Multi currency

Once the main currencies (for accounting and reporting purposes) have been established, analyses can be carried out also with other reference currencies.

Multi language

riskart® features a multi-lingual dictionary that allows users to use various languages within a single installation.

Scalable

No matter whether it is installed as an in-house software solution or an ASP service, the solution's high scalability allows Clients to choose the configuration that is best geared to the user's needs – from single positions to professional multi-position environments located in different sites.

Easily integrable

riskart® can be integrated with other applications both for the input of external data (e.g. financial instrument registry, market prices, front-office applications) as well as the output of data generated by the software (accounting documents, notifications, updated positions, etc.).

Adopts flexible architecture

The three-tier structure (user interface, application server and database) is highly flexible and guarantees high adaptation standards to the Client's individual needs. Users who employ different operating systems (Windows, Macintosh or Linux) and different web browsers (Microsoft Internet Explorer, Netscape, Opera, etc.) in various versions can coexist. The same applies to different application servers

based on different operative systems such as Unix, Linux or Windows, and the product is compatible with any major database (MS SQL Server, Oracle, DB2, etc.).

Independent, reliable and stable

riskart® is the second financial software created by Twoogroup. This means that the significant know-how acquired with previous projects and the client feedback gathered in this process has led to an extremely rational, flexible, modern and user-friendly product. In a heterogeneous environment such as IT, the most widespread solutions are not always the most technologically advanced. Often, users have to opt for an all-in-one solution or commit to certain software producers regardless of the quality of their products. riskart® was developed as a truly independent solution, detached from any vendor or provider. This is an implicit guarantee of the application's longevity.

Easy to install

riskart® is installed only in the server machine. There is no need to install accessories in client workstations using the application. Nor is it necessary to have a preset runtime.

The database connection is activated during the installation process, via the ODBC driver; no further software layers are required to establish this communication.

Optimizes data management

riskart® can manage and process large volumes of data quickly and efficiently. The user has access to menus for the mass run of certain processes and of monitor and control masks of automatic events.

the product

Reduces operational risks

Thanks to process automation, the user is responsible for fewer actions, thus reducing the risk of operational errors.

User-friendly

One of the strong points of riskart® is its clear, complete exposition of data – the logical, physical order in which these are presented. This option is particularly

useful in the field of cash flow, the complexity of which is simplified by means of a mask that can be immediately understood by the user.

Furthermore, the data necessary for operations that are run only occasionally are added to the same mask, saving the user from moving to other pages.

the product / **technical features**

The application layer was entirely created with C++ and is therefore easily supported by different environments such as Linux, Unix and Windows. Porting to mainframe environments is available on request.

The user interface was entirely created in pure HTML without any dependence on external objects.

Most major databases are supported, including Oracle, MS SQL, MySQL, Sybase, DB2, and Informix.

At this stage, only one third-party software application has been selected for integration into the riskart® solution: MicroStrategy®, a particularly synergetic product with similar versatility, portability and scalability criteria.

the product / **configuration**

riskart® has a multi-tier architectural structure in which components can be assigned to different servers. It thus provides significant flexibility and scalability.

The possibilities range from simple one-server configurations to the most complex ones that imply the following:

- Database server for transactional data;
- DataMart server for Data Warehouse;
- Application Server for the application logic;

- Application Web Server to support HTML user interface;
- Report Application Servers;
- Web Server, Report Application Server and Report Meta Data Server to support all reporting operations and particularly the HTML user interface, the business intelligence engine logic and meta data.

the solutions

In order to offer quick and helpful answers to specific industry problems, banks, asset management institutions and industrial companies have various solutions at their disposal based on riskart®'s software "kernel", which is tailored to each segment according to their specific requirements.

the solutions / riskart® Banking

This is the complete solution to integrate external Front and Back Office applications as well as accounting systems. It provides flexible operational support on all financial contracts – especially OTC and regulated derivatives. The product is compliant with IAS accounting standards (principles 32 and 39 including hedge accounting). It also provides the regulatory notification required by supervisory authorities and operations settlement information for SWIFT purposes.

The following are the user activities managed by riskart®:

Back Office user

This user is in charge of administrative, accounting and notification activities. The Back Office user reviews and verifies the operations carried out and takes care of any entry correction or cancellation. Back Office users are mainly involved in the following processes:

- registry management of derivative instruments and baskets;
- registry management of counterparty data;
- operations review with counterparties;
- correction/cancellation of operations;
- cash flow management;
- settlement management with depository banks;
- valorization;
- book-keeping entry verification;

- creation of audit notifications;
- administrative and accounting report generation.

System administrator

This user is in charge of the current solution and the main tasks involve:

- monitoring of communication processes among applications;
- monitoring batch interfaces (registry of securities and counterparties, price and exchange rate input, account flows and notification, etc.);
- DB administration;
- configuration table management.

the solutions / riskart® Asset Management

This is a complete solution to easily integrate external Front and Middle Office applications with the Back Office and book-keeping accounting systems in the management of any financial contract, especially OTC and regulated derivatives. It also features specific data flow generation tools needed to calculate the Net Asset Value (NAV) in financial contracts.

The product is compliant with IAS accounting standards (principles 32 and 39 including hedge accounting). It also provides the regulatory notification required by supervisory authorities and operations settlement information for SWIFT purposes.

The following are the user activities managed by riskart®:

Back Office user

This user is in charge of administrative, accounting and notification activities. The Back Office user verifies and checks the operations carried out and takes care of all necessary integration, correction or cancellation.

These are the main procedures a Back Office user is involved with:

- registry management of derivative instruments and baskets;
- counterparty registry management;
- reviewing operations with counterparty;
- correction/cancellation of operations;
- cash flow management;
- regulations management with deposit bank;
- valorization and NAV calculation;
- book-keeping entry verification;
- creation of supervision notification;
- administrative and accounting report generation.

System administrator

This user is in charge of the current solution and the main tasks involve:

- monitoring of communication processes among applications;
- monitoring batch interfaces (registry of securities and counterparties, price and exchange rate input, account flows and notification, etc.);
- DB administration;
- configuration table management

the solutions / riskart® Corporate

This is a complete solution that covers operations involved in liquidity management and transaction administration as well as accounting and hedging operations compliant with the IAS 32 and 39 accounting standards. These are the user activities managed by riskart®:

System administrator

This user is in charge of the current

solution and the main tasks involve:

- monitoring of communication processes among applications;
- monitoring batch interfaces (registry of securities and counterparties, price and exchange rate input, account flows and notification, etc.);
- DB administration;
- configuration table management

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