

BANKING ENGINE

### The banking engine that empowers your business



T he Thaler is a coin that appeared in Germany in the 16th century. Taken over by Austria then by Spain under the name Tallar, it naturally ended up in America where it gave rise to the Dollar.







## The banking engine that empowers your business

Thaler is a powerful banking software package that supports your back office administration and handles your products and transactions. Integrated, yet modular, it is the most dynamic and reliable backbone for any financial entity – whether global or local. The unique combination of an extensive portfolio of functions with an impressive flexibility makes it an outstanding solution for every type of organisation, from retail and personal banks to credit institutions and stock investment companies.

### A wealth of banking functions

Are you looking for automated management procedures for payments, loans, securities, treasury and deposits? Real-time registration of cost accounting, risk or customer management data? Thaler's numerous components allow all this and much more. With Thaler, you get maximum coverage of your needs at a competitive price. It is an invaluable engine for all on-line operations related to products and services. And it instantly provides management with an updated overview of critical business indicators. Regular releases ensure that Thaler remains fully in line with legal functions and technical evolutions.

### Exceptional flexibility

Are you considering to offer unique banking products or to introduce new ones? Adding another front-end for banking operations? Doubling your customer base and the number of operations? Merging with another organisation? Thaler's clever design, technical framework and integrated tools facilitate all these strategic decisions, with virtually unlimited flexibility. Thaler remains a perfect fit even as markets and technologies evolve. It is an investment designed to last. In fact, Thaler may well turn your IT into a key differentiator.

Thaler is an established banking engine you can totally rely on. It is a consistent and robust performer. And, most importantly, it leaves you free to concentrate on your core business – today and tomorrow.



## Matching and leveraging your strategic needs

Information technology has become so essential in supporting your core business that it must match your specific needs as closely as possible. Our vast experience confirms that most financial institutions share similar strategic concerns. Thaler - designed, developed and fine-tuned with the help of knowledgeable bankers - helps you to strengthen your market position and stay ahead of the competition.



### Customer focus

Thaler holds all the essential information you need for an efficient Customer Relationship Management policy. Its principal focus is on the customer. Your staff always has a global and detailed view of customer data. Besides personal information, Thaler records all relevant customer activity such as assets, commitments, transactions and lines of credit. This means better informed, timely advised, and fast, customised service.

### High quality management information

Thaler continuously provides managers with a complete and reliable view of operations. All critical management data, such as general accounting and cost accounting balances, are instantly updated with every transaction. Real-time risk positions are available on interest rates, foreign exchange, counterparty risks, etc. Details of every transaction and accounting entry are retained in the database, enabling comprehensive analysis and exact reporting.

### Increased operational productivity

The automated management of banking operations and products greatly increases the efficiency of your organisation. Thaler's user-friendliness by design is another major impulse for enhanced productivity. Intuitive user interfaces, standardised screens and procedures, omnipresent on-line help, as well as short response times all contribute to increased efficiency and productivity. Even education and training times are reduced.

The Banking engine



### Innovative market response

Thaler gives you the power to respond to market demands and trends the moment they arise. Its parameter-based design allows you to create and release innovative financial products in a fraction of the time it normally takes. New distribution channels can be added without having to adapt the system. Full STP, Thaler enables Internet banking, mobile banking, call centre integration, and all other communication channels expected to impact the financial world.

### Supporting corporate structure

Thaler naturally adapts to your specific organisation and follows your structural changes. The software is based on an open and scalable architecture that lets the system grow steadily with your business. High performance is guaranteed, even with huge volumes of transactions and a growing number of sites and users. Since Thaler fully complies with the Enterprise Application Integration concept, it is also the ideal solution for mergers, acquisitions and reorganisations.

### Future-proof IT investment

To maximise your return on investment, you need to make the best technological choices that guarantee durability. Thaler deploys advanced yet proven technology. Its client/server architecture is based on market standards and open systems. Thaler is also fully portable. It is a solution built on innovation and built to last.





# Maximum functionality at your fingertips

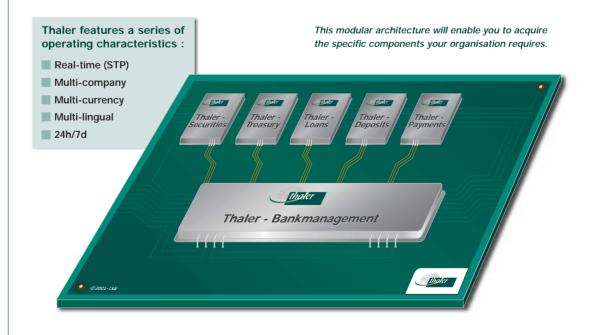
Thaler is a global and integrated solution that handles the daily management of a financial institution as well as its products and operations. Two layers of individual components organise its numerous functions.

### Thaler Bank Management layer

The Bank Management layer covers all central administrative functions, such as customer information management, accounting and risk management.

### Banking products and operations

Banking products and operations are addressed by five sets of business components which together make up the second layer.





### **Thaler Bank Management**

### Clients

Retains all customer and other stakeholder information in a single, central database and makes this information available to each Thaler component.

### Accounting

Covers detailed accounting, as well as general ledger, cost accounting and legal report preparation. Provides a central posting mechanism.

### Risks

Records the bank's various risk positions and centrally manages authorisation processes for all transactions.

### Tariffs

Centrally monitors all parameters, rates and amounts that make up the tariff rules of your financial products and services.

### Messaging

Provides single source management of all messages produced by Thaler for internal and external parties, such as statements, SWIFT messages and commercial communications.

### General services

Handles a variety of service and support functions, such as currencies and exchange rates, settlement paths and bank structure.

### Banking products and operations

### Thaler Deposits

Manages all customer deposits such as current accounts, savings accounts, certificates of deposits, time deposits, as well as interest calculations on each of these products.

### Thaler Securities

Stores a description of all negotiated securities. Handles customer portfolios, securities transfers and full STP stock orders. Also includes private asset management functions.

### Thaler Loans

Takes care of all types of credit operations, including personal loans, cash credit, fixed term advances and mortgages. Also covers collateral management and related guarantees.

### Thaler Treasury

Covers a wide variety of financial operations related to foreign exchanges, money markets and derivatives.

### Thaler Payments

Groups all functions for remittances, national payments, debit and credit card administration.



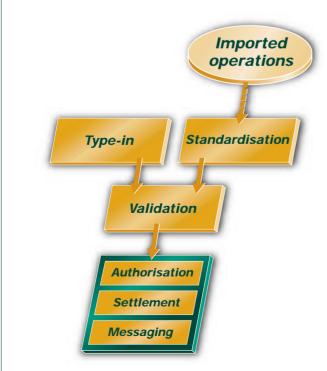


### Functional design provides wealth of benefits

Thaler utilises a series of architectural choices that provide maximum benefit and convenience to users. Its cleverly thought-out design optimally supports current business processes and future evolutions. Thaler's impressive combination of distinctive qualities make it a truly unique solution.

### Functional flexibility

Thaler is parameter-driven. It is based on a vast number of variable parameters that can be easily defined and modified. This allows you to introduce new codification values, establish new tariffs, define reporting rules, design statement layouts, etc. As a result, you effectively have a product factory at your disposal: by simply introducing relevant conditions and rates, you can easily create new banking products. This flexibility keeps Thaler responsive to the ever-evolving requirements and challenges of the financial world.



### Consistency of processing

Whatever the nature of a financial operation – payment, security order, FX contract, etc. – each one is always processed identically. A transaction is first validated following the 4-eyes principle or your own validation rules. It is then executed in real time. Authorisation, settlement and messaging happen in a single logical action stream. The execution phase either guarantees a successful update of all related data or a complete rollback in case of a technical problem. Consistency and reliability are guaranteed.



### Consistency of data

Thaler's two-layer architecture is component-oriented yet entirely integrated. All components communicate continuously but each component maintains responsibility for its own data and functions. This guarantees maximum data consistency. When executing a payment operation, for instance, the Payments module automatically calls on certain Bank Management components for the latest customer details. Once its task is accomplished, it addresses other modules for the settlement path, the booking in accounts, production of SWIFT messages, etc. This system structure makes data corruption impossible.

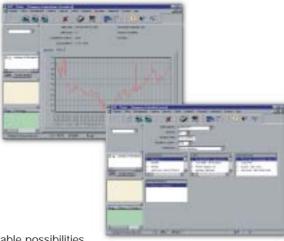


### Inherent security

Because Thaler plays such a pivotal role, it must of course be absolutely secure. Great attention has been paid to the overall security of the system. Access rights are rigorously managed and every transaction request checked. Thaler also systematically records an audit trail, which enables the precise identification of when actions were executed and by whom.

### Productive user-friendliness

Thaler's uniform design ensures that users always feel comfortable with the system logic. The intuitive screen layout and navigation sequence help users rapidly master the system. On-line help provides assistance in using the application and understanding the data. Thaler is also multi-lingual: staff within a multinational institution can select their preferred working language. The 'multiple sessions' feature enables users to work on several tasks simultaneously.



### Open to systems and channels

Thaler's modular design opens it up to innumerable possibilities.

The clear client/server relationship between its components uses

standard interfaces, which facilitates integration with external applications. Moreover, this architecture enables the easy addition of new components. All of these are extremely useful features in multi-channel environments and complex architectures.

### Future oriented technical architecture

Thaler's functional layers are plugged in a robust technical framework that orchestrates the entire banking engine. This middleware isolates the applications from the technical environment and ensures total connectivity with external systems. It also carries out a lot of common tasks.

### Isolating the business logic

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Thaler's framework isolates the business logic from the technical level of the configuration, i.e operating system, RDBMS, scheduler, printsubsystem, etc. The framework puts these elements at the disposal of Thaler's functional components through dedicated API's.

Connecting with the external world The framework monitors all the banking functions. These, through standard XML-interfaces, can also be invoked by external applications of all Thaler - Framework

types : front-end, back-end, scheduler, desktop program, etc. The same functions are executed exactly the same way, whatever the origin of the request.

### Executing a myriad of transverse tasks

As a central component of Thaler, the framework also carries out various transverse tasks, made available to all the business applications. Most important are the security functions - access rights, passwords, audit-trail, etc.- and the database management.

### High performance Thaler makes the most of your computer power: parallel processing enables short on-line response times and fast batch processing.

### Total portability

The integrated technical framework guarantees total portability. Thaler runs on a wide variety of configurations from different suppliers.

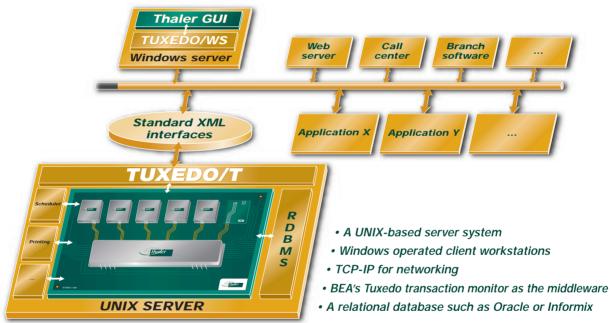
### ■ Natural connectivity Thaler is easily integrated into complex architectures. It is a natural component for any Enterprise Application Integration infrastructure.



Thaler is based on a solid client/server architecture with industry-standard components. The system is technologically advanced, fully open and scalable, which is perfect for future extensions.

### A clear graphical user interface

Thaler's thin client layer comprises a modern graphical user interface (GUI) designed to be as intuitive as possible : on-line help, multiple windows, easy menus. It also interacts with various desktop applications.



### Open to multiple front-ends

Thaler's architecture perfectly fits multi-channel extensions. Its native client layer can be conveniently replaced or completed by any front-end application : e-banking, call-centre, branch system, etc.

### Enterprise application integration (EAI)

Thaler completely matches EAI requirements. The functions can be invoked by other back-end systems, or vice versa and executed within multi-system global transactions, thanks to Thaler's XA compliance.

### Future evolutions

The technical and business elements of Thaler are separated. This guarantees a smooth adaptation to technical evolutions and new business needs.

### High scalability

The client/server infrastructure has outstanding scalability. Thaler grows with your financial institution without creating any bottleneck.

### A durable solution

Thaler relies on established technical components that are market standards. These choices make Thaler a solution that is built to last.



## Thaler in your organisation today and tomorrow

Thaler seamlessly fits into your infrastructure. It comes with a set of tools and methods that greatly facilitate its implementation. The associated documentation is cleverly structured and provides invaluable support in fine-tuning this powerful application to your organisation.



### Implementation

Thaler features a variety of tools and methods for automated and secure set-up :

• Thaler's **configuration management** tools allow easy set-up of the environments (work, acceptance, operation) and ensure perfectly controlled transfers from one environment to another.

• Specific tools are supplied for establishing the initial parameters :

creation of parameter values, design of document layouts, menu editing, definition of access-rights, etc.

• In many cases, implementation requires programs for **data migration** from the existing system. Thaler's standard input procedures greatly facilitate this task and make it fully secure.

• Integration with other applications means developing specific interfaces. Thaler has adequate tools to enable this with maximum efficiency.

### Documentation

All related Thaler documentation is structured in a way that allows both users and technical staff to quickly find the items they are looking for :

• The **Data Dictionary** provides a functional and technical description of all data included in Thaler, both at entity level (tables, interfaces) and at field level (each field is described in detail).

• The **Process Dictionary** contains a functional and technical description of all Thaler processes : on-line transactions, batch programs, sub-routines, etc.

• Each component is supplied with a set of **text documents** that includes a design overview file, an installation manual, an operation manual and training support.

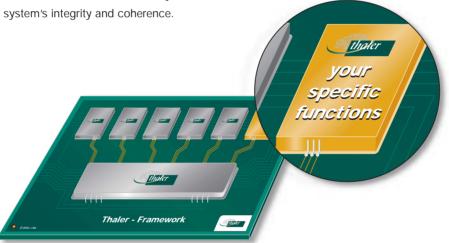
The dictionaries are also available on-line as a context-sensitive Windows help file. Client-specific information can easily be added to these dictionaries and integrated in the on-line help file.



With Thaler's integrated tools, custom developments can be made to cover your every need. Even the most specific process can be created during implementation or at any later stage. Exclusive release management tools and methods provide you with rigorous control over the system regardless of what adaptations you undertake. Consistency is always guaranteed.

### Customisation

Thaler comes with its own development environment. This powerful feature enables the rapid and secure creation of new functions and components. All enhancements are perfectly integrated into the overall architecture without any adverse affect on the



Thaler's many development tools include integrated compilation and building tools, a screen editor, a source analyser, prompt and error message repositories. Callataÿ & Wouters also uses these tools for the continuous development and refinement of Thaler. The complete toolset is included with the application and at your disposal.

### Release management

The regular delivery of new releases also follows stringent procedures and methods, and uses appropriate tools. A clear, complete and coherent overview of all Thaler developments is provided by :

• The **change repository** at the customer's premises. This repository systematically keeps track of all customisations. It provides a clear view of the system when new releases are delivered.

• Our in-house version management. All modified items are submitted to a version manager that records all changes and developments compared with the previous software version.

This combination of tools provides totally secure installation of delivered releases, even when your system has been heavily customised.

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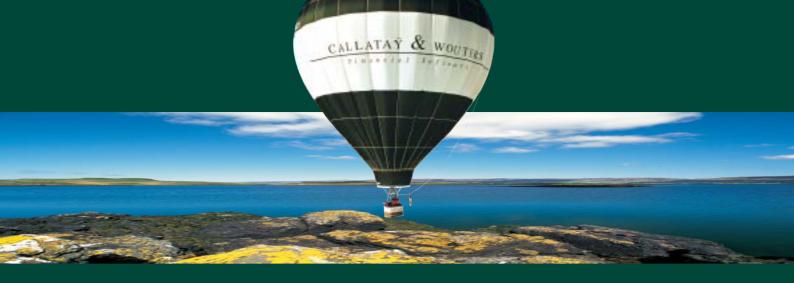
### Conclusion

Thaler offers a unique combination of rich functionality and total flexibility. It is an incomparable tool for banking business, from all point of views :

- Thaler helps the management implement his vision and strategy.
- Thaler is for the users an efficient and user-friendly day-to-day performer.
- Thaler enables the IT-team to address promptly all challenging requirements.

You have found the ideal solution for all your projects.





### Helping the finance industry reach new horizons

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