

# sqlFinance

## **Customizable Enterprise Resource Planning (ERP) System**

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### Highlights

- Framework with multi tier architecture
- Single user or client server version available
- Object oriented presentation layer with multiple windows opened and drag and drop features
- Business layer with business rules and business services
- Relational database, in the server version with stored procedures and transaction support
- Multilanguage support system
- Multiple database access, multiple mandates, multicurrency
- Special features
- Powerful search tool for data selection
- Standard and user customizable reports
- Integrated text management (letters, bills, documents, etc.)

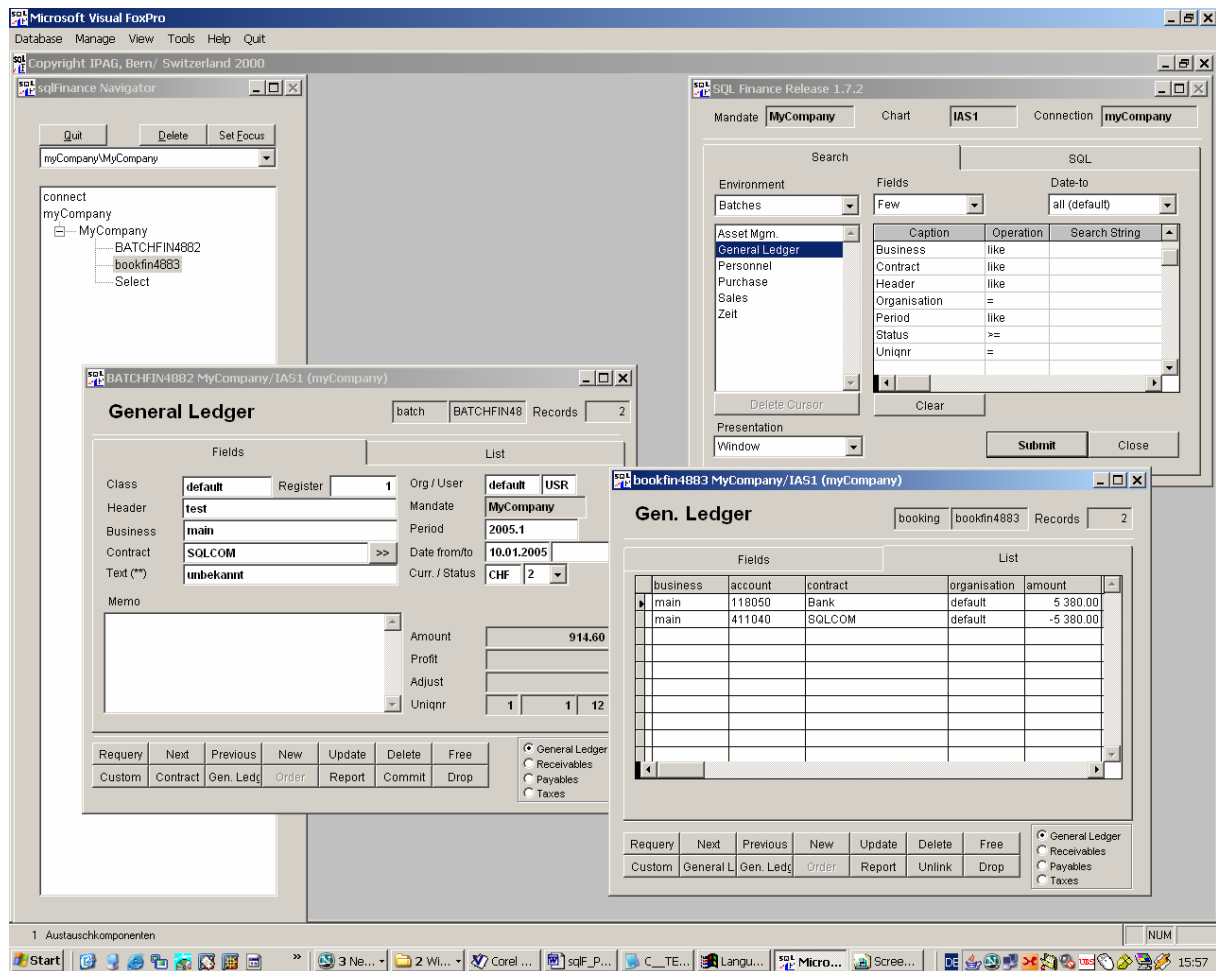
### Modules

- General ledger with unlimited number of mandates and sub-periods
- Sales and purchase process with inventory control
- Shipping and picking
- Accounts payable and receivable
- Tax management
- Human Resources module with payroll
- Time management
- Portfolio management

### Technical Architecture

- Object oriented software design and user interface
- COM server with possibility for user funtions
- Meta-database driving middle tier and form manager
- Multiuser version with SQL Server implementation and stored procedures
- Language Manager for for multilingual language support

# Product Overview



SQL Finance is an Enterprise Resource Planning (ERP) system that can be used as a ready to run product as well as a customizable development system. Experienced users will enjoy the possibility to modify databases, forms and reports and create their individual part of the application. With little training internal IT-Professionals or external service providers will be able to implement major enhancements like new tables with master/detail relations, lookup and verification rules and company specific services in the COM middle tier or the stored procedures of the server.

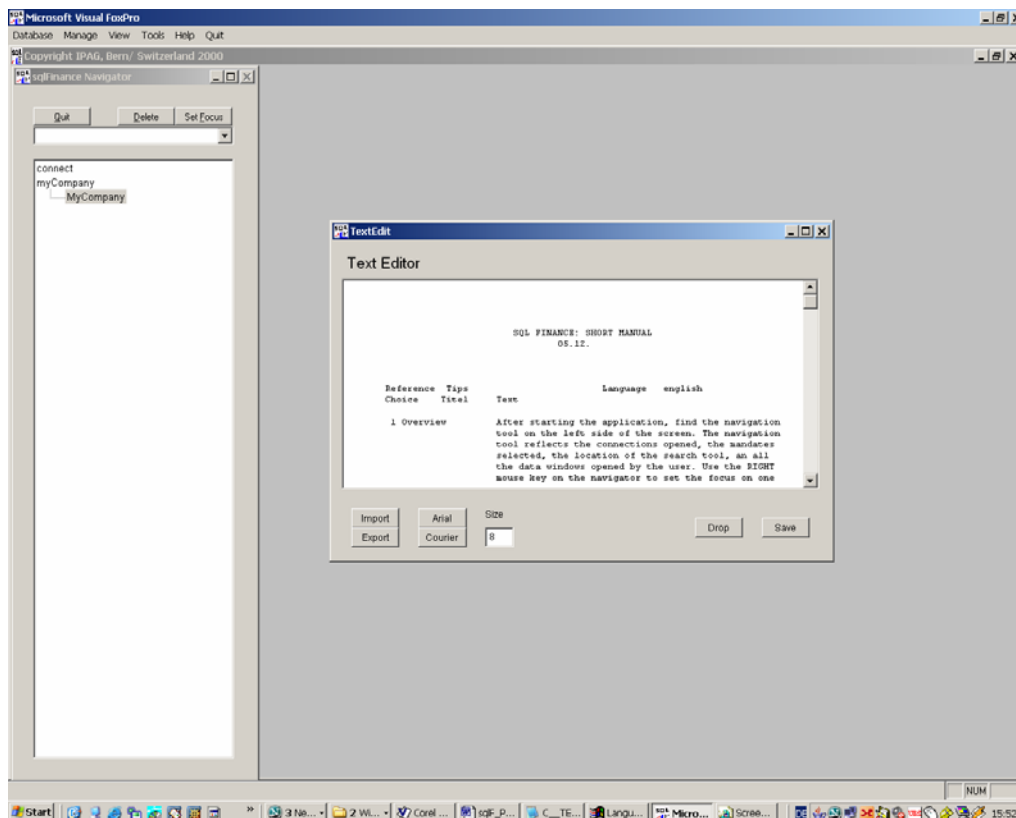
SQL Finance is shipped in two basic version, a standalone PC version with single user access to a local database and a client-server version with access to a company database server. All of the software is developped with Microsoft tools and runs on Windows or NT/SQL Server installations.

The product supports the management of relationships with different kinds of business partners. Contract management allows the handling of business interactions not only with clients, vendors or other external business partners, but also employees or any other contacts. Business events can be grouped and analysed over different periods according to order, shipping, billing, payment, profitability and cash flow aspects.

The server version includes logistics support. Inventory may be tracked in different locations, with average sales and purchase prices. The user may pick and ship from the inventory with drag and drop features.

SQL Finance is a product with an international orientation. It supports foreign currency through all kinds of transactions and can be easily adapted to any foreign language. Through connection with the Language Manager all screens, reports and messages can use online translation without any loss of speed or comfort. The Language Manager supports all foreign languages compatible with the window operating system and provides a powerful set of tools to make the translation process efficient as well as consistent in the use of the foreign language terms.

SQL Finance includes office tools for text processing. Letters, offers, bills, documents may be imported, exported and stored in many text fields of the database. Reports can be directed to the screen, to paper, to files or their ASCII output kept in text fields. This makes the storage and retrieval of business documents very efficient.

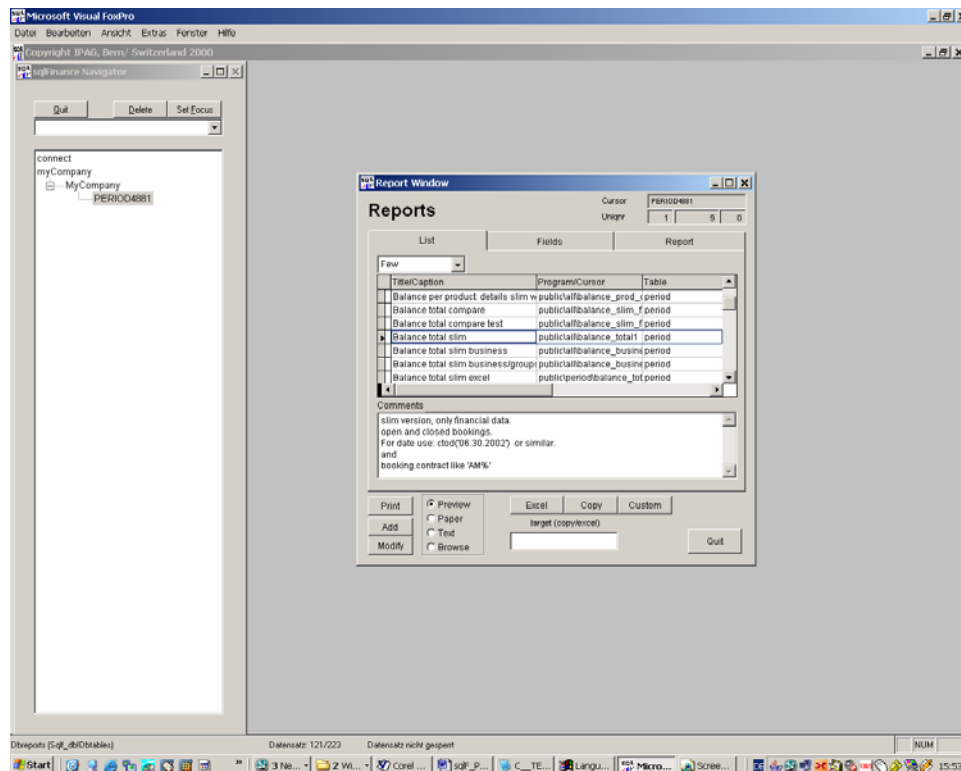


The “reports” tool includes, in a similar manner as the “search” tool, powerful query options. A report can be run:

- On the current list of records
- On any selection referenced to the current record. The selection may include several tables joined through master/detail relationships. In the reports tools, the user may at any time edit the sql query statement and add desired search criteria.

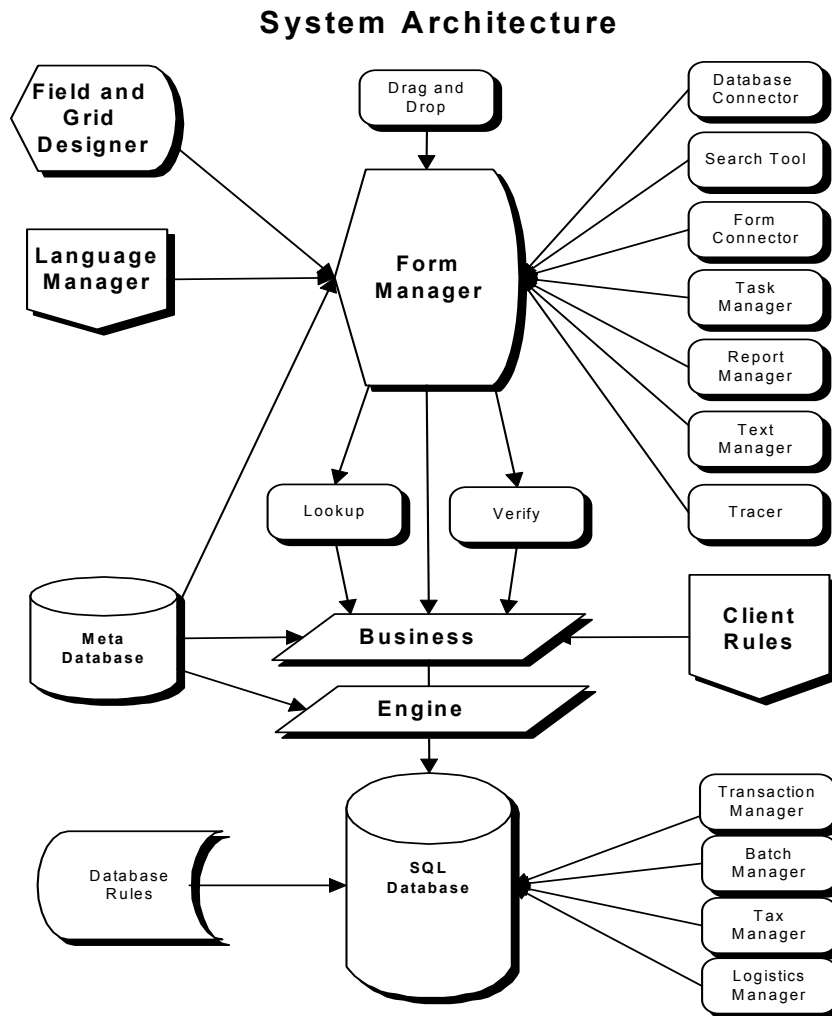
The output of the report tool can be directed to:

- A previewer
- The print manager
- A browser list  
(with possibility to export)
- A file
- A text window in the reports tool



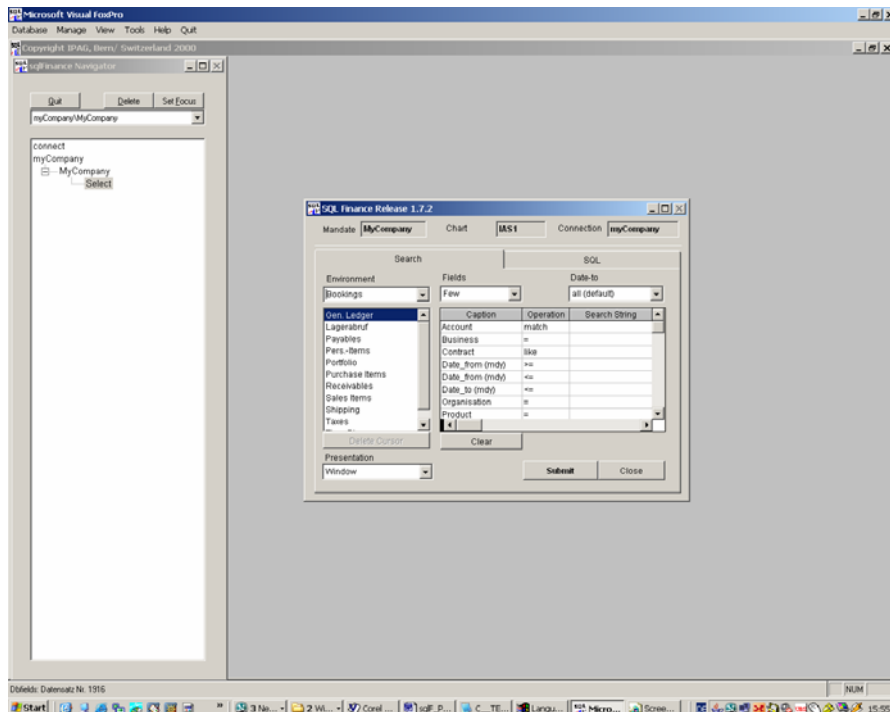
## System Architecture

The modular architecture of SQL Finance makes the product attractive for users as well as for developers. All tables are presented through the form manager. The user can choose between a grid listing the current selection or a collection of fields for the current record. Master/detail relations are easy to understand and triggered through the use of master/detail keys or double clicks on fields to lookup master references.



The form manager is database driven. Classes and methods access a meta database defining data structures, data relationships and rules. The meta databases includes information about referential integrity, lookups and double click effects. Modifications in these rules can be effected without any programming necessary.

The search tool is used to specify the search values for a query. Queries can be stored and reused in the search tool. Search values can reference any fields, and the ordering of the selection can be specified additionally.



Database access is executed through the “engine” COM object. The engine will assure the integrity of the active user environment, considering the current mandate and chart of accounts. The use of the engine enables the user to work simultaneously in more than one mandate or database and transfer data from one mandate or database to another.

A toolbar manages the windows opened. This facilitates window access when many windows are opened. Another tool allows to store a reference to any single record selected, with the possibility to add personal notes in a text field. These “notes” may be classified according to a priority and retrieved in later sessions.

Drag and drop is used widely in the application. It is possible to drag records to the toolbar, or establish connections between records through drag and drop (ex. Connect a master and detail product entry in a bill of material). Drag and drop can also be used to connect payments to bills, with more than two records possible and test if the total clears to zero. Dragging records of one window over another similar window will create new entries with copy of the source records in the target window.

A replication system handles the transfer of update operations from one database to another database. Separate installations can receive user updates that can be exchanged through replication or transferred from remote workstations to servers.

The middle tier provides a number of services:

- Database integrity
- Transaction management
- Closing of batches and periods
- Accounting requirements
- Tax management
- Inventory support
- Customer relationship measurement
- Log tracking

The middle tier is structured in three layers:

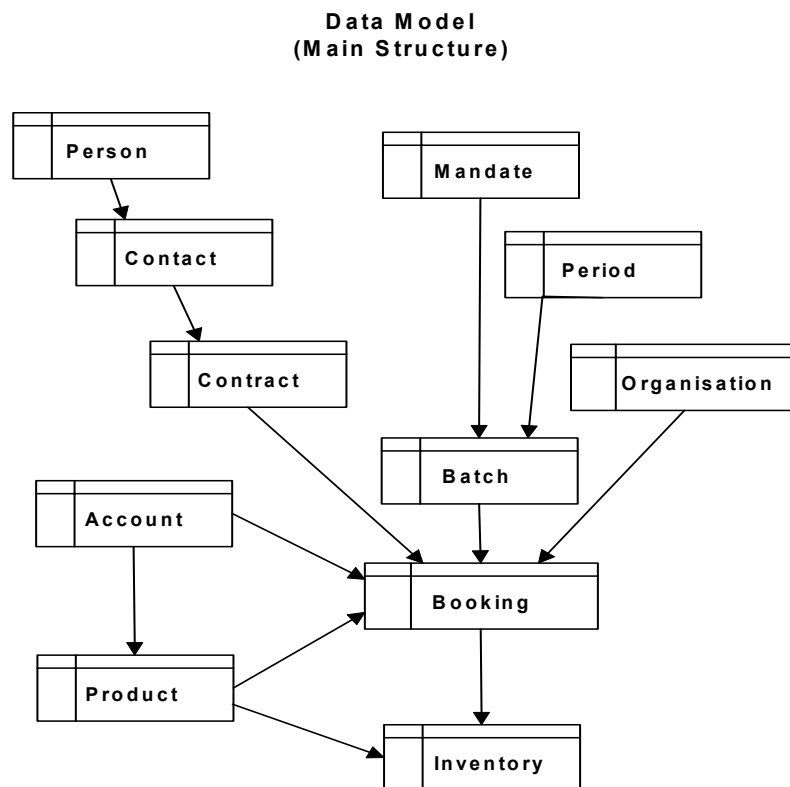
- Engine: control of database access
- Business: control of application rules
- Form: control of data representation in windows

The business tier may be implemented in two versions:

- COM server:  
The COM server will be used in the standalone PC version, when there are no stored procedures available. The COM server is easy to program and company specific features can be implemented without modification of the other application elements.
- SQL Server stored procedures:  
The stored procedures assure data and method integrity for all users. The business services of the stored procedures go further than the COM server. They include inventory control, shipping and picking, and customer relationship measurement.

## Application structure

SQL Finance uses a well proven data model. User specific data structures can be added to the basic data model. After specification of new data structures in the meta database, the form manager will support presentation and update operations on these data structures as well. Through master detail and lookup relationships new tables may be integrated into the SQL Finance data model. The high consistency of the data model keeps database structure simple and is a solid base for queries and later analysis.



SQL Finance can be combined with Business Process Engineering for the modeling of the following basic dimensions:

- WHERE: Company Organisation (cost center)
- WHAT: Product or Service
- WHO: Contractor (client, vendor, employee)
- WHEN: Period (reporting period, closing period, order date, due date)
- WHY: Business (tracking of business fields and profitability)

#### Technical features of server version:

- Multiuser Environment
- Transaction processing
- Multiuser access control
- Record level locking
- Locking of closed periods and closed batches
- Log file for follow up of user activities

#### Basic application elements

- Accounts (chart with IFRS sample, account structure, reporting account structure, account groups)
- Company and company organisation (profit centers, cost centers, groups within the organisation)
- Contracts (orders, sales, banks, insurances, employment) with contract financial status (earnings, expenses, balance, credit limit), contract specific properties (currency, taxability, market region) and contact person/address.
- Products (including bill of materials, product line with instructions for general ledger accounting and tax management)
- Prices and discounts (per market, company, product line or product). Price list per market, with foreign currency. Price per unit of measure, per minimum quantity. Special prices and discount sales.
- Properties (descriptive feature for persons, positions, batches)
- Batches with collection of bookings (ex. General Ledger batch with closing records, Sales Order batch with sales items for a customer)

#### Batch structure

- General Ledger (multiline entries, foreign currency)
- Accounts Receivable/Payable (conditions, address information, foreign currency, payment clearing)
- Purchase and Sales: (product, unit of measure, price, discount, tax, sales person, time status, foreign currency)
- Payroll (labor costs, labor quantity, organisation, insurance and social security, percentages, accounting information)
- Time Management (time, price, contract, employee)
- Portfolio Management (value, price, expenses)