

# **XMI-ALMIS**

## **FEATURES**

## Summary

*XMI-ALMIS is a modern and powerful management information system that utilises the windows operating system delivering true multi-user financial risk, modeling and reporting resources for Banks, Building Societies and other financial services institutions.*

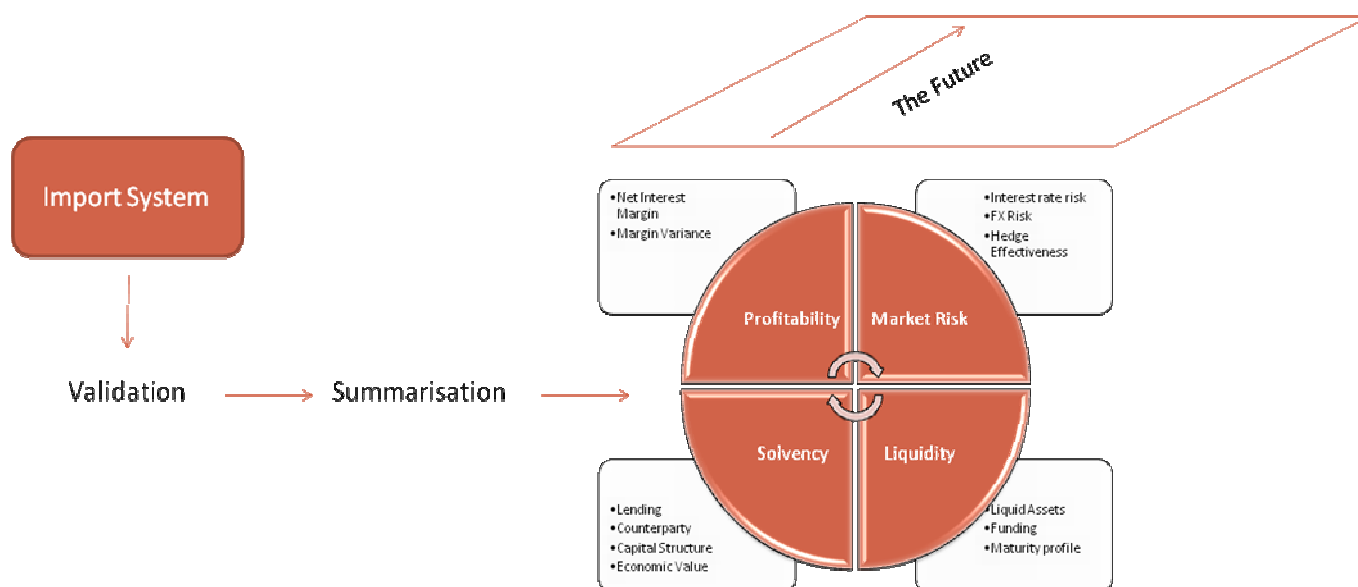
### In summary the system delivers:

**Balance Sheet & Margin Reporting** – integrated, timely and detailed information relating to the balance sheet and margin, and tools to understand variances between time points

**Risk Reporting** - a comprehensive series of market, liquidity and solvency risk reports and graphs.

**Stress Testing and Scenario Modeling** - a wide range of market based forecasts, business scenarios and stochastic modeling, delivering fast and understandable analytical power to aid complex strategic and tactical business decisions. This includes are market/economic value sensitivities, income and balance sheet simulations and liquidity stress tests

**Balance Sheet & Income Planning & Budgeting** - advanced functionality to develop detailed forward projections and balance sheet and income plans. The system can be used to develop plans, to compare plans with actual, and also provides dynamic risk analysis.



## Financial Risk Solution

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The system can be configured to suit a variety of banking institutions, including clearing banks, listed banks, investment banks, savings and loans institutions, finance houses, leasing companies and building societies

XMI-ALMIS has two primary modules: one covering data integration, data management and summary calculations, and one covering 'high end' information and modelling resources. The product can be configured and installed to precisely match a client's requirements.

### Business Features

- Income Planning
- Margin Variance Analysis
- Balance Sheet Planning
- Balance Sheet Analysis
- Liquidity Stress
- Periodic & Cumulative Gap
- Re-Pricing & Maturity Gap
- Duration Analysis
- Fair Value / Pricing
- Break-even Yield Analysis
- Earnings Sensitivity
- Product Sensitivity
- IAS 39 Hedge Accounting
- Market (Basis Risk) Sensitivity
- Market Value Sensitivity
- Pre-Payment Modeling
- Value at Risk
- Monte Carlo Simulation
- Comparative Scenarios
- Comparative Reporting
- Counterparty Risk

### System Features

- For Microsoft Windows NT 2000, 2003 2008 XP, VISTA or Windows 7
- Dynamic Time Periods (no restrictions)
- Multi Portfolio Analysis (no limit)
- Open Database Connectivity (ODBC)
- Replaceable Database Drivers (RDD)
- Customised Data Integration
- Object Linking & Embedding (OLE 2.0)
- Dynamic Data Exchange (DDE)
- SQL data file access
- Encrypted Passwords & System Logs
- Error trapping

## Scenario Functions

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The system allows the user to subject calculated data to a series of what if scenarios. The user can develop and save different scenario sets and apply these to any portfolio. The main scenario functions are detailed as follows:

**Planning Wizard.** The planning wizard allows the user to create an unlimited and diverse series of new balance sheets and income statements based on an existing balance sheet. This is a sophisticated function that allows plans to be developed quickly and accurately, based on both low level detailed assumptions and high level strategic goals. All new plans contain data at the lowest level, delivering the full compliment of reports and scenario functions for each future plan period. Detailed variance analysis and data mining is also possible.

**Full Shift (parallel) Sensitivity.** This allows the user to input *easily* a full shift (parallel shift) change to interest rates across all reporting periods and to observe *quickly and simply* the profit or loss effect from this change across all reporting levels, both resulting from the change specified by the user and to the complete reverse change. The output is displayed graphically, in a printed report. It is also possible to save full shift scenarios for use with different portfolios.

**Sensitivity by Category and Product.** This allows the user to input an interest rate change for each category or at a detailed product level and to observe the profit and loss effect across all reporting levels, or, to input rate changes specific to each reporting period. It is also possible to save the full set of scenarios for use with different portfolios.

**Sensitivity by Interest Rate Market.** This allows the user to input interest rate changes by interest rate market which can be applied to any future time period. This facility is especially helpful for analysing basis risk. It is also possible to save scenarios for use with different portfolios.

**Multiple Scenario Sensitivity.** This allows the user to view the net profit and loss over different reporting periods for a group of chosen scenarios. This facilitates numerous simulation strategies and statistical techniques such as stress testing and Monte Carlo simulation.

**Market Value Sensitivity.** This function allows the user to consider market value sensitivity, that is the sensitivity of the market value of a security to changing interest rates.

**Value at Risk.** A value at risk measure is calculated with reference to a statistical volatility based on a confidence level, i.e. a probability, and a holding period, i.e. the time over which the potential loss can occur. Value at Risk is an estimate with pre-determined confidence intervals of how much one can lose from holding a position over a set time horizon, whether it be one day for typical trading activities or a month or longer for portfolio management. This method uses historical volatilities and correlations of rates and prices to estimate the market risk in positions.

**Proposed Future Transactions.** This allows the user to input a series of proposed future transactions and to observe the resultant risk implications. The user can input any combination of category or product, including hedges. The user is able to observe risks before proposed transactions, as a result of the proposed transactions and after proposed transactions. Proposed transactions sets are saved for each portfolio.

## Standard Reports

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XMI-ALMIS delivers specific standard and regulatory reports. Calculated data is displayed on screen and can be printed, saved to a file or copied and pasted easily to spreadsheet and other applications. All reporting fields can be linked to an integrated graphics engine. A report writer is also available. The following details some of the main reports.

**Interest Margin and Balance Sheet Reports**, which detail the daily interest and accounting balance, net interest margin, accounting and Effective interest rates for all products, by category or by drilling down to a detailed product level. The report also includes key ratios.

**Exposure Reports**, which detail interest rate risk in a variety of ways, including duration, earnings sensitivity, market value sensitivity and value at risk. Exposure is analysed by category or by drilling down to a product level. The user can dynamically switch between different risk reporting periods, for example, monthly, quarterly, annual.

**Break-Even Yield Analysis**, which details the cumulative outstanding values and corresponding average yields by reporting time periods and by product. The report can be based on a cumulative or periodic basis, using accounting or interest balances. The user can dynamically switch between reporting time periods, or can drill down to more detailed levels.

**Gap Analysis**, which is the same as the report above except it can cover unlimited gap periods. Hedges are normally split with receipt elements stated as assets and payment elements stated as liabilities.

**Currency Exposure Analysis**, which details currency exposure in a variety of forms.

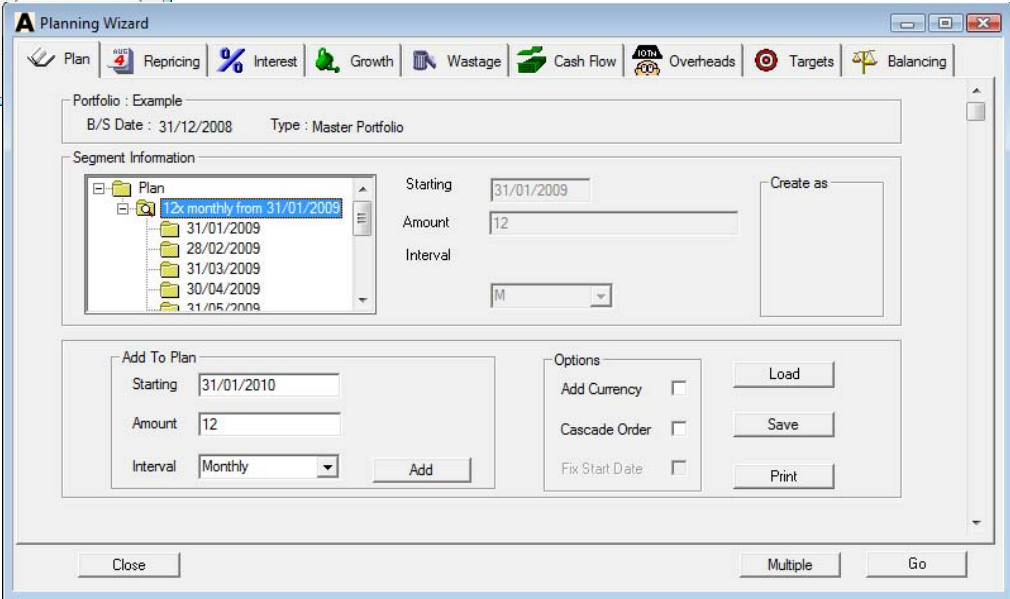
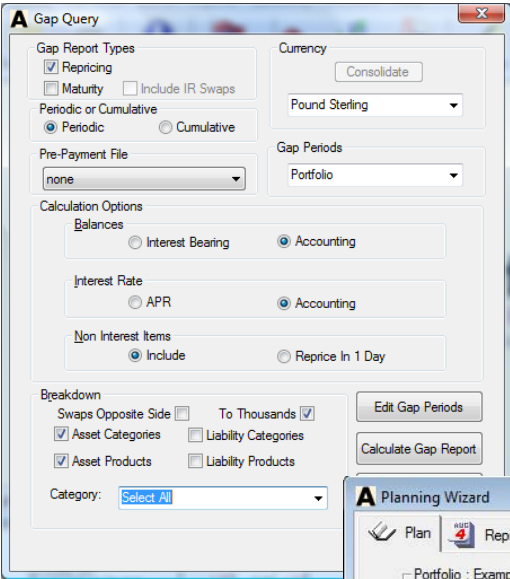
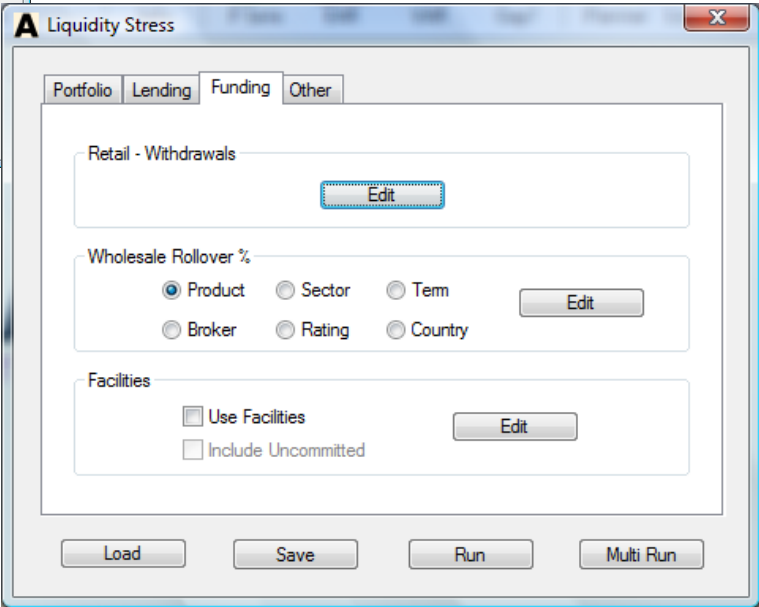
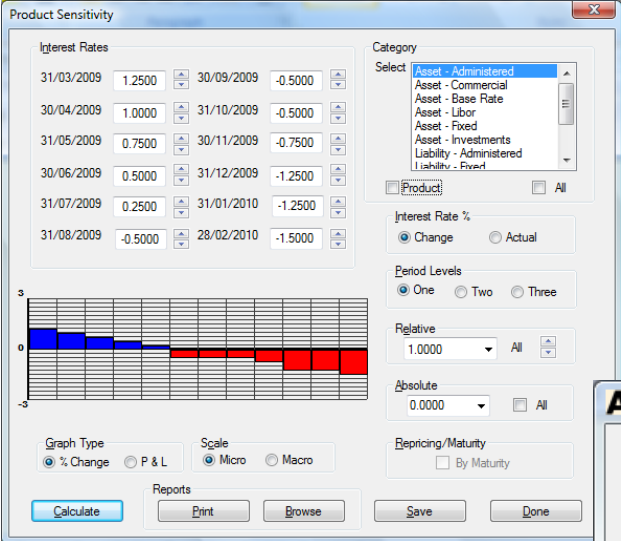
**Regulatory Reports**, FSA 017 (Interest Rate Gap Report), 047 & 048 (Liquidity - Enhanced Mismatch Reports) and FSA Basis Risk Return

**Counterparty Exposure Report**, which details the credit risk of each bank counterparty.

**Comparative Reports**. This is a very powerful reporting function, which provides the facility to compare different reports from different portfolios. Combining this with the balance sheet planning tools creates budget balance sheets, compares actual against budgets and performs a wide range of balance sheet, profit and cash flow plans.

# User Interface

Customised and easy to use screens guide users safely through the array of advanced functions



## Product Categories

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<b>Assets</b>	<b>Liabilities</b>	<b>Derivatives</b>
Customer loans	Current accounts, call accounts, retail deposits, share accounts & bonds	Vanilla swaps
Mortgages (variable, fixed, discount, cash back capped floors, accreting etc)	Time deposits	Delayed start swaps
Wholesale loans	Wholesale deposits, CD's (or other 'paper') issued	Amortising swaps
Gilts & Treasuries	Acceptances and Bills	FRA's & Futures
Bonds, FRN's MN's	Bonds, FRN's, PIBS	Forwards, Currency swaps
Overdrafts	Interest free deposits	OTC and exchange traded Options, Caps, Floors & Strips
Cash, Pre-payments	Creditors & Accruals	Quantos
Lease agreements	Taxation	Forward commitments, pipeline assets and liabilities
Hire purchases	General reserves	Embedded optionality

## Xbase Object Oriented Systems vs Spreadsheets

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*The modern spreadsheet is a remarkable tool for financial managers. They contain thousands of powerful features and represent excellent value for money, with the development costs shared by many millions of users world-wide.*

*For highly specific applications however, spreadsheets do have limitations. Asset Liability Management and Income Simulation are examples of these limitations.*

### **Performance**

Income simulation and modern risk management techniques involves millions of calculations over thousands of data records. Spreadsheets can be very inefficient for this specialist task. An optimised Xbase program is up to one hundred times faster than a number of linked spreadsheets.

### **Security**

Can users inadvertently change formulas and critical data? User access, data validations, error logs, audit logs and data integrity controls can only be achieved using a robust and secure development architecture.

### **Data integrity**

A key feature of asset liability management is collecting, integrating, summarising and storing data from many different feeder systems. Automatic and reliable data integration needs specialist technology.

### **Support**

Delivering upgrades and detecting errors are essential elements in a fast developing area like asset liability management. Without the proper infrastructure using dedicated programs and organised data, upgrades are expensive and error remedy is very slow.

### **Dependability**

A large spreadsheet based system contains many linked components, making it very difficult for new and inexperienced users. By contrast, a robust turnkey system steers new users safely in the right direction.

### **Reliability**

**Executive decision makers need reliable information. Without total confidence in the information, timely and informed decisions cannot be made.**

**XMI-ALMIS uses fast and safe technology optimised for the task in hand – delivering advanced functionality based on a solid foundation.**