

FAME SOFTWARE

Access, store, analyze and manage high-volume time series data

Fame Software provides a solution for storing managing and analyzing high-volume time series data such as end-of-day pricing, earnings estimates, index prices and constituents, and macroeconomic data.

Designed with a deep understanding of the properties of a time series, Fame Software is used worldwide by research and quant groups in leading financial institutions; producing, trading and consuming firms in the energy sector; and central banks and statistical agencies.

Unlike a relational database, Fame Software is designed to hold data held in a time format. It stores time series data in a vector structure, helping to provide more efficient historical data storage and retrieval than a SQL-based solution. In addition, the Fame database manager maintains data on contiguous areas of the disk for the fast retrieval of historical data.

One of Fame's foundations is a calendar, so unlike relational databases, Fame Software understands the concept of time. This enables it to recognize months of varying lengths, business days, holidays, and leap years. For example, Fame's underlying calendar can determine which years include 52 Fridays rather than 53 and accommodates interest rate calculations using either a 360- or 365-day basis. This time-series orientation is ideal for the heavy computational activities of technical analysis, quantitative analysis, economic forecasting, portfolio performance measurement, and risk management.

Within Fame Software, information is stored at its natural frequency, rather than forcing disparate data types to conform to a single structure or model. This minimizes storage space. Each value is associated with the actual time stamp on which it was reported.

Fame Software stores attributes that define whether the data in each time series represents sums, highs, lows, averages, and beginning or ending values. It automatically considers these attributes when converting data. Since observations are associated with actual calendar dates, Fame Software can easily perform conversions between different, unaligned frequencies. Data can be graphed, reported and used in analysis at any frequency.

Fame databases can be logically organized without artificial constraints. Many different types of objects can be stored in a single database, including time-series of

different frequencies, scalars, formulas and case series. Users can access multiple databases simultaneously, and each database can store a virtually unlimited number of objects. Regardless of the physical location of data, Fame Software uses database linking to create one logical database, so all of the data stored in the system appears to be one database to the user.

Special time series attributes

As part of the fundamental design of Fame Software, the attributes that are assigned to each time series have special characteristics. These attributes define, for example, each data type: end-of-period values (inventory), beginning-of-period values (opening prices), summed values (sales), annualized values (housing starts) and highs or lows (equity prices).

Time series can also have user-defined attributes, which allows customers to customize classification and screening. For example, bond attributes such as issue-type, maturity, and coupon might be instilled so that users can filter the database for specific maturities.

Fame formulas

With Fame Software, there is no need to store derived series. Formulas store the relationships between data objects and are calculated dynamically on retrieval. This helps ensure that the related values are current when base series are updated.

Fame	RDBMS
Fame is optimized for storage and manipulation of time series.	RDBMS are optimized for fast searches and retrieval of tabular data.
Fame stores data in vectors.	RDBMS stores data in tables.
Fame stores objects individually using an object oriented model.	RDBMS stores raw data that needs to be restored to objects.
Fame uses the object name to identify and find data.	RDBMS uses keys and indexes to find data.
Fame does not maintain relations to ensure fast performance.	RDBMS allows for relations between tables to create complex data models and maintains referential integrity.
Fame allows code to be stored in procedures and functions.	RDBMS allows code to be run through stored procedures.

Integrated time series query language

The Fame Query Language provides additional programming capabilities over and above traditional functional or object oriented programming languages like C++ or Java.

Built-in analytical functions allow users to perform advanced statistics, forecasting, reporting, graphics and modeling. These pre-defined functions help minimize the amount of coding needed, which helps enable rapid development and ad-hoc analysis without any constraints on the size of models and the depth of history.

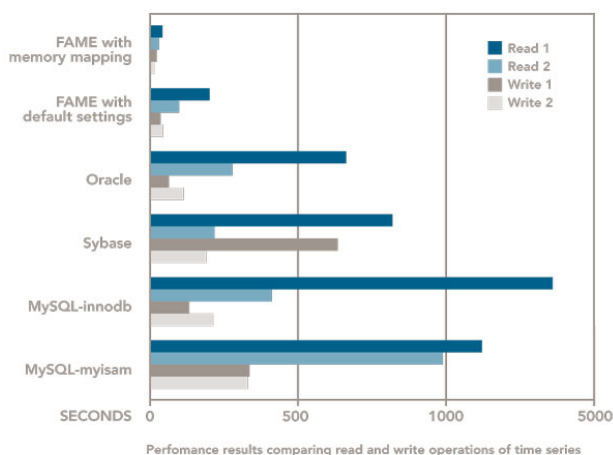
Developers can access, manage and manipulate data from the Fame database by using a set of time-intelligent routines. Users can work interactively with Fame Query Language or use it programmatically to create reports, graphs or analytical routines.

Intuitive and easy to learn, the Fame Query Language includes a full suite of time series statistical functions and forecasting procedures, giving users the flexibility to define their own commands and functions. It also allows them to perform sophisticated, ad-hoc data manipulation and analysis and to build powerful applications and routines with minimal development time.

Flexible data storage

Each time series in a Fame database can span different data ranges. For example, a single Fame database can mix annual net exports data with quarterly corporate earnings and daily pricing data.

Fame databases store other data in addition to time-series information, such as static values that don't change over time, data indexed as an array (rather than by time), and formulas, eliminating the need to store the computed values. When the data underlying a formula changes, the effect is observed in the formula output.



Holiday and missing values can be included or skipped as desired during computations. Fame "Name-lists" provide logical grouping of database objects to speed cross-sectional searches for lists or subgroups of database elements.

Fame Web Access

Fame Web Access provides access to the Fame time series database via Web Services calls. Fame Web Access also allows the Fame Query Language, the Fame Java Toolkit, the Fame C++ Toolkit and Fame SQL Access – which normally talk to the Fame Server – to pull data from a Fame Web Access server.

SunGard offers two add-on components that work with Fame Web Access: the Fame Entitlements API provides more granular entitlement down to the observation level, and the Fame SDMX Access kit returns data in an SDMX format.

Fame C++ Toolkit

The Fame C++ Toolkit allows a C program to access a Fame database to retrieve time series data and convert it into native C structures. Time series data can be mapped into C vectors, allowing analysis in a C/C++ environment. Users can read and write to local and remote databases using all Fame access modes and can send and receive commands to and from a Fame session for processing.

Fame Desktop Add-in for MS Excel

Fame Desktop Add-in for MS Excel makes it easy to work with the Fame managed data content. It features tools for finding identifiers and items and searching facilities and provides an easy to use application that requires no prior knowledge of Fame Software.

Fame Java Toolkit

A Java class library that facilitates the modeling and manipulation of Fame time series data in an object-oriented manner, the Fame Java Toolkit offers the Fame Software time intelligence in an industry standard, object-oriented programming environment.

Fame .NET Toolkit

A C# class library that facilitates the modeling and manipulation of Fame time series data in an object-oriented manner, the Fame .NET Toolkit offers the Fame Software time intelligence in an industry standard, object-oriented programming environment.

Fame S+ Connector

Designed to be a powerful, flexible and reliable alternative to quantitative analysis by spreadsheet, the Fame S+ Connector combines SunGard's Fame data management

solution for managing high-volume time series data with Insightful's S-PLUS software platform for statistical data analysis and predictive analytics.

Quantitative analysts can rapidly create powerful models for even the most complex financial instruments and dramatically accelerate the process of bringing accurate data from Fame into the powerful S-PLUS environment for advanced quantitative analysis.

The Fame S+ Connector can help simplify object identification and retrieval through optional tools such as the Fame Desktop Add-in for MS Excel. These tools can offer greater productivity when working with objects from the Fame container by combining the high end analytics of S-PLUS with the optimized storage and performance of the Fame databases.

Fame Server

Fame Server is a client/server solution that allows Fame client applications to talk to centralized data servers. The servers can both distribute raw data and perform analytics on the server side before returning results to client applications.

Fame SQL Access

Fame SQL Access offers access via ODBC and JDBC, providing industry standard connectivity to third-party applications (e.g. Crystal Reports, COGNOS, S-PLUS, etc.) and SQL developers.

Compatibility with third-party applications

In addition to the APIs and interfaces described above, Fame Software is compatible with a number of statistical and quantitative analysis applications, including R, SAS, MATLAB, Troll and eViews.

Fame is also compatible with BITA Curve, Xenomorph and SunGard's Xamin risk and enterprise data applications.

KEY BENEFITS OF FAME SOFTWARE:

Offers a high level of performance

Fame Software helps customers rapidly execute large or complex data retrieval and analysis. Fame S+ Connector helps quantitative analysts create powerful models while maximizing their time.

Is highly efficient

Fame Software is designed to offer the fastest retrieval of historical data, while information is stored at its natural frequency in order to minimize storage space. With its foundations in a calendar, Fame Software is ideal for the heavy computational requirements of technical and quantitative analysis, economic forecasting, portfolio performance measurement, and risk management.

Can be customized

Customers can tailor how data is classified and screened.

Supports rapid development and analysis

Built-in analytical functions for advanced statistics, forecasting, reporting, graphics and modeling help minimize the amount of coding needed, allowing users to develop and analyze data more quickly.

Works with a range of APIs and toolkits

Fame Software can be used with a variety of APIs and tools so that customers can get the most value out of the Fame data. In addition, customers receive flexible and customizable access to the data.

Can provide an efficient and reliable alternative to spreadsheets

Fame S+ Connector helps quantitative analysts rapidly create powerful models while ensuring that the data is accurate.

Offers an open platform

Fame Software provides a large number of APIs for easy and flexible integration with other tools.

NEED MORE INFORMATION?

Contact your sales representative at +1-800-825-2518 or visit us at www.sungard.com/fame.

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