

## jBASE™ – An excellent fit for TEMENOS

*More than 60% of the entire TEMENOS user base runs jBASE™. Outside of TEMENOS, in other industries, an estimated 8000 businesses around the world rely on the product for their mission-critical systems. However, since jBASE™ is effectively embedded into T24, we asked Clive Ketteridge, co-founder of the jBASE™ company in 1989 and now general manager for jBASE™ within the TEMENOS Group, to look under the covers and explore the benefits that jBASE™ brings to so many TEMENOS clients.*



**Clive Ketteridge, general manager for jBASE™, TEMENOS**

jBASE™ sits at the heart of T24 – it is the ‘invisible engine’ of the T24 solution and is made up of a number of components including a database, runtime environment and middleware.

### A pioneering design

From its origins at the beginning of the 1990s, jBASE™ was designed with both database and platform independence in mind. In fact, before Microsoft delivered open database connectivity (ODBC), jBASE™ engineers had already built an application development system which was completely database independent. By means of an innovative open and published interface (jBASE™ External Device Interface – jEDI), customers could achieve seamless integration with any database. This meant that any jBASE™ developed application could read and write to whichever database was required for data storage – not just the native jBASE™ database but also Oracle, DB2 and others – a first in the industry. Indeed, when Microsoft launched its ODBC strategy in 1995, it sanctioned what jBASE™ was already doing, by promoting the idea of database independent applications.

jBASE™ was also the first solution to be available across all popular, commercially viable platforms such as Unix, NT and Linux. Today, jBASE™ runs on all of the most widely used hardware and operating systems, with the

inherent ability to port to different platforms designed into the product in the very early stages. For the banking business, this means that our clients have choice – choice in hardware and operating system suppliers, as well as suppliers of databases, integration software, scalability software and development tools. The reason that this is possible is jBASE™’s open architecture.

jBASE™ was first commercially installed in February 1993 and, since then, has been adopted in more than 70 countries worldwide and by representatives of almost every industry. Over 300,000 users and 8000 businesses rely on jBASE™ for mission-critical information management every day.

### An excellent fit for TEMENOS

TEMENOS acquired jBASE™ in 1999. At that time, GLOBUS was limited, from a technical perspective, by UniVerse, the underlying database. To be able to provide major top tier banks with the performance and scalability they required, TEMENOS needed to move away from UniVerse and into the mainstream, not just with databases but with tools and connectivity. The market was asking for mainstream solutions and that meant Oracle or DB2 in many cases. But how could TEMENOS deliver these? The answer was via jBASE™. By adopting jBASE™ as the underlying technology, all of the application’s features were retained and the architecture was opened up for further mainstream enhancement, with the choice of database extended to include Oracle, DB2 and, today, SQL Server too.

Now, some seven years on, TEMENOS can be confident that it made the right decision: thanks to jBASE™, database storage is a matter of client preference and budget and T24 has been developed as a multi-platform, multi-database solution. The product’s performance and scalability has also been proven, as nearly all of our larger GLOBUS and T24 clients now use jBASE™.

So, TEMENOS’ clients can select the best database vendor or environment to suit their own needs, be this low cost, high performance,

local support or any other factor. If this priority changes in the future, they can switch database vendor without altering their investment in T24. This enables true system longevity.

### Why has jBASE™ been so important for TEMENOS?

jBASE™ has allowed TEMENOS to expand its technological view significantly. We are now able to take advantage of Java technologies to provide interoperability and scalability options. And jBASE™ applications can easily integrate with mainstream technologies such as MQ Series and other such products. We can deliver solutions on jBASE™, Oracle, DB2 and SQL Server.

The move to jBASE™ has had an impact on TEMENOS’ customer profile too, allowing us to incorporate some of the largest banking groups in the world. Since the purchase of jBASE™, TEMENOS has grown from a \$25 million company to one which is worth a predicted \$210-215 million this year and has progressed from being viewed as just one of a number of solution providers in the banking sector to a market leader. The ability to deliver a world class solution on jBASE™, Oracle, DB2 or SQL Server – indeed on virtually any platform that the client desires – must have been a factor in this growth.

### Strategic relationships

Relationships with HP, Sun, Oracle, IBM and Microsoft are strong, and regular communication takes place between the respective development teams, allowing the jBASE™ product to benefit from this type of privileged information exchange.

These vendors supply the jBASE™ development team with information (as well as hardware and software) prior to general release, so that compatibility tests with jBASE™ can be undertaken and the system can be tuned to adopt vendor enhancements that will eventually benefit any applications developed in the jBASE™ product line.

Regular workshops take place with the principal vendors as well as ad-hoc consultation.

This means that the development team is always ahead of the game when developing the building blocks for future releases of jBASE™.

In fact, the development team has accelerated research and development into emerging technologies and today has a presence on the XML development boards of Oracle and IBM to name just two significant placements.

Do we compete with these suppliers? We have the luxury of not having to compete at the database level: if a client prefers a particular database, then that is what we will deliver, support and enhance on an ongoing basis.

### The future

jBASE™ has a fully funded roadmap for years to come and we will be sharing details of this with you in a future article. The roadmap provides the development team and our clients with a focus for the future.

Recent features added to the product deliver greater flexibility, scalability and ease of administration. Enhanced SQL, Java and XML support means that jBASE™ can compete on a level playing field with the mainstream DBMS suppliers. In addition, a new file type has been added to address the restriction that the 32bit file imposes. The new file type allows files larger than 2GB to be used without additional administration.

Each release becomes a litany of additional features and platforms. For example, jBASE™ 4.1.5 (today's general release) adds Sun's Opteron as well as HP-UX Itanium to its list of supported platforms.

The jBASE™ release 5 development is nearing completion. It brings with it years of enhancements all aimed at improving our clients' businesses and protecting their investment in T24. It is a 64bit implementation, which includes features such as warm start

recovery, resilient files, auto-resizing files, online back-up, OBJEX.Net and more. Some of these features are of major benefit to our clients as, for the first time, a native jBASE™ solution can be billed as non-stop in both application and database. It's a great step forward and yet just a simple upgrade for our client base.

It's all very well to discuss the technical advances but, at the end of the day, it is the business benefits that really matter: jBASE™ is packed with benefits to enhance our clients' businesses. The open architecture puts them in control, provides them with choice and is com-

pletely protected going forward.

Since its first commercial installation in February 1993, jBASE™ has offered unparalleled robustness, scalability and connectivity. We intend that the next generation of jBASE™ will continue this tradition.

Watch this space for more news as, from now on, we will be updating you via TEMENOS NEWS on all things jBASE™. If you would like to contribute, please send your ideas to Caroline Guennelon at [cguennelon@temenos.com](mailto:cguennelon@temenos.com)

## SQL Server added to Microsoft stack for TEMENOS T24™

Microsoft SQL Server 2005 has now been added to the stack of Microsoft support for T24. This is the final component of the Microsoft stack. Part of the Windows Server System, SQL Server 2005 is a complete database and analysis offering that helps to deliver increased security, scalability and availability to enterprise data and analytical applications, while making them easier to build, deploy and manage.

This means that T24 will now operate with Microsoft across a number of major products and technologies from the front to the back. Says Mark Gunning, TEMENOS' group strategy director, 'We've supported clients running on the Windows platform since 1997. T24 has supported Microsoft Windows Server 2003 and the Microsoft.Net framework, including Microsoft ASP.Net, for its powerful SOA and web services deployment capabilities. In addition, customers have the option to use the T24 adapter for Microsoft BizTalk Server to directly leverage BizTalk's capabilities in enterprise application integration. With the addition of SQL Server, our T24 customers can now operate in a 100% Microsoft environment.'

He adds that the decision to make this available stems from the increased acceptance of the Microsoft platform and a level of customer demand indicated by TEMENOS' customer advisory groups. 'We have a small number of clients dedicated to the Microsoft platform. Jih-Sun Bank has just become our largest live client on this platform, with over 1.5 million accounts. Whilst the bank is not currently using the SQL Server database (it was not available when the project began) we expect them to migrate to it in the near future. Since announcing the availability of T24 on SQL Server in June, we have been surprised by the high level of interest and also by the size and nature of the banks showing this interest. In general they are much larger than we had expected.'

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content from various external and internal sources, including GLOBUS, thus eliminating the need for data entry and content duplication between systems. Compliance with banking industry regulations is facilitated through the product and its inherent flexibility allows new business functionality to be delivered as EFG Bank's business evolves.

### Siron

More recently, and in the light of particularly stringent anti-money laundering requirements from the Swiss authorities, EFG Bank selected a specialist AML system – Siron from IMTF – to help it to fight financial crime. Some AML

facilities are available from TEMENOS but, as Mr Cookson comments, 'This coverage would be fine for some financial markets – the UK, for example – but greater depth and breadth is needed to meet the more onerous Swiss expectations.'

As the product is fully integrated with GLOBUS/T24, Siron offers a single platform to manage all the risks associated with compliance and fraud; a behaviour detection platform; and the ability to meet multi-jurisdictional compliance requirements. It is also sufficiently flexible to evolve with changing regulations. Siron, which is used by more than 500 banks around the world, can be deployed extremely rapidly. EFG Bank uses Siron at eleven locations.

Specific modules include software for the prevention and detection of money laundering activities using sophisticated analytics such as adaptive profiling and link analysis; SWIFT message filtering through sanction and PEP (politically exposed persons) lists; and periodical customers' database filtering through sanctions and PEP lists. Siron helps to ensure compliance with international and European regulations, EU money laundering directives and the US Patriot Act.

IMTF is one of TEMENOS' newest partners, having signed a global agreement with the company at the end of July. Bank of East Asia in London, another TEMENOS client, has also recently signed for Siron.