

# Looking after the family silver

*Almost all of us have legacy systems of one sort or another. Antony Adshead looks at what can be done to breathe new life into those key investments*

**W**e live in the era of an ageing population. We're constantly bombarded with reminders of the coming pensions crisis and the strain on resources of looking after senior members of our society. If you're running computer systems in a manufacturing company, it's possible these stories have some parallels for you.

According to a 2005 survey by HAL Knowledge Systems the average age of applications running core business processes is 15 years, while 30% of companies are maintaining software that is 25 years old. Just like an ageing population, that costs money.

But, it's not only cost that's an issue. As the speed and nature of business is dragged along by the growing maturity of the Internet and high speed communications, there is the need to ensure your systems keep up.

Baker Tilly, says: "If you can't compete on cost it's a case of making sure your customer likes what you do for them. For this you need to automate processes to allow flexibility, such as giving a customer that needs parts on a short lead time access to your systems. That way they can see stock levels and delivery times and place orders accordingly. This kind of thing is impossible in lots of cases where there are old, inflexible systems."

Quite simply, systems developed 20 or more years ago were not intended to link processes or data to the Internet or indeed any other package – certainly not in the flexible ways expected today. Process flows tend to be rigidly coded, and connecting them with modern application add-ons will soak up a lot of costly developer time and expose you to business risk and the next phase of legacy lock-in.

## "Legacy systems are likely to be inflexible to new business models"

*David Weaver, Logical Minds*

If your IT system is increasingly resembling an ageing relative – whether loved and knowledgeable or grumpy and taciturn – it's worth thinking through your options.

Sticking with what you've got can be a costly and risky strategy. If you intend to leave legacy systems untouched you have to be pretty confident no-one can threaten you by cutting costs or improving processes. Most manufacturers won't be in this position, and are likely to face increasing IT maintenance bills to boot.

As David Weaver, managing director of software process specialist Logical Minds, says: "Legacy systems are likely to be inflexible to new business models and incur high costs and risks in support. This can happen particularly where a system has been developed over a long period by a single developer – it becomes complex and there is only one developer who can maintain it."

But equally, while legacy systems may cost a lot to maintain, the business value they hold could well be priceless, forming the body of key business knowledge and processes built up over many years. Liberating that data for the new world in which you find yourself could bring immense benefits.

As John Oates, IT services partner at consultancy

### The options

So, how can you breathe new life into your legacy IT? In fact there are several options. There are ways, for example, of extracting data from legacy environments and rendering it in modern formats. The most basic is 'screen scraping'. Software connects to the legacy set-up, emulates the keystrokes of a user and converts the output. It's a pretty basic method that leaves the underlying system untouched, but suffers from not being scaleable. If all you need is to get at information in old systems and pass it on in a new format, it may be a solution.

'Wrapping' solutions go considerably further, exposing your IP as services for re-use wherever, whenever. The approach required is that of today's hot subject, transforming your legacy infrastructure into a service orientated architecture (SOA). That requires business and IT analysis and solid strategic thinking, but there are tools there both to assist with the analysis and the legacy service discovery and wrapping.

Next is enterprise application integration (EAI) – using software that builds new APIs (application program interfaces, or routines, protocols and tools) to legacy applications so that programmers can bind legacy data and business logic to your chosen modern systems. Again, the data doesn't change, but EAI allows newer applications to talk to your old ones, and in theory there are few limits to what you can then do in terms of achieving flexibility, except perhaps cash. Vendors supplying EAI software generally supply large enterprises and have



enterprise-scale pricing structures to match.

An increasingly attractive alternative, however, is 'simply' to retain your data while replacing your core applications – what's termed 'rip and replace'. If that route appeals, you'll need to decide what the business wants to achieve and what system requirements are needed to get it there. All this is familiar IT project procedure, but the perennial stumbling block with migrations from legacy systems is almost always data quality.

### Data quality

As Ted Friedman, vice president of analyst Gartner's data management team, says, analysing data quality is a critical early step – and one that many underestimate. "People focus on simply getting data from one place to another but don't think about issues of quality. There can be lots, for example, where data has been entered but consistency of format and validity has not been maintained. With older legacy applications it is easy for data to become stretched and bastardised over time."

Simon Eade, IT manager at motor sport manufacturer Caterham Cars, recently faced exactly these issues. The firm is currently in the process of moving its core applications from XKO's K-Open 3 with a Kerridge database on Unix, to Syspro packaged ERP for build-to-order manufacturing, CRM (customer relationship management) and the rest from K3 in a Microsoft environment with a SQL database. That upgrade was prompted, he

says, by end of life issues with the XKO software and the high cost of a new Unix server, and Eade hopes the new set-up – when it goes live in June – will allow people to, "talk less so they communicate more," with email and fax straight out of the ERP system as well as event triggers, electronic sign-offs and so on.

Data quality issues have been a major feature of the project, says Eade. "As is often the case, people develop things beyond their ability. We find fields set up for one thing have over time become used for another. When we're importing data it'll crash and we find someone has put birthdays in fields meant for fax numbers," he says.

There's no option but to resolve things the long-winded way, he advises. His team has been extracting data from the legacy set-up and importing it into Excel spreadsheets. Here it is checked for details such as valid fields, correct telephone number formats and account codes, before being exported to SQL. The lesson he has learned is to ensure that your systems and any changes to them are well documented, and that development is carried out in a consistent fashion.

Whatever your reasons for upgrading from a legacy set up, you will want to make good use of data it holds. Dealing with the quality of that data is the most fundamental and time-consuming stage in the process, and for most an inevitable one – just like ageing. ■

Enter 260 at [www.mcsolutions.co.uk/enquiry](http://www.mcsolutions.co.uk/enquiry)

*Antiques are priceless – but as the speed and nature of business is dragged along by the growing maturity of the Internet and high speed communications, there is a desperate need to ensure that your systems keep up*