



A White Paper

Task Orientated Applications (TOA) leads Human Interaction Management Software (HIMS) to next generation business applications

Executive Summary

The paper summarises the current situation where technology has driven the business application industry but has yet to fully acknowledge the way business really works. The time has come to separate “Information” and “Technology” in application building and hand the business process back to the business stakeholder. The recognition of the relevance of HIMS by the industry is gaining momentum. The logical next step to take is at the application level where the only interaction that people have is via their allotted tasks in the business.

At the core is the need to recognise that it is people and their daily tasks that are both the source of information and main drivers in any business. The reality is that there are less than fifteen task types in any business, which can handle any eventuality. By expressing these task as data it is possible to now build applications in a data-centric environment which in one development environment contains all today’s requirements of BPM, rules, state, time and user interface.

This TOA approach effectively separates these business fundamentals from the technology led delivery mechanisms taking application development to a new paradigm, which will ultimately see application software become a commodity. The TOA approach effectively closes the gap between business and IT. People and tasks are not function limited therefore a TOA has a huge range of capability.

The paper concludes by supporting Nicholas Carr’s view published an article in the Harvard Business Review in 2003. “IT doesn’t matter”. With a TOA approach technology becomes subservient to the business. It is how you differentiate the running of your business that matters. A Task Orientated Application does just that for business people through simple business thinking and logic.

Background

Historically business software has been developed to mimic the way “book-keeping” evolved, which naturally resulted in silos of disconnected information. This was driven more by satisfying record keeping needs than providing an aid to optimising how a business worked. ERP emerged to basically unify these “silos” and largely achieved this objective but at the cost of the “system” dictating how the business ran. In addition the large suppliers employed thousands of programmers to pump out hard-coded applications, covering a wide variety of business functions and yet seldom reflecting the way people work in business.

Not all end-users welcomed this prescriptive approach and preferred “custom built” applications instead. However, this had endemic disadvantage of relying on technology driven (rather than business driven) programmers, using custom programming and proprietary tools to produce modular/component-based applications. The specification of such solutions is invariably an uncomfortable hybrid mix of business and technical jargon, and the solutions provided seldom reflect exactly what the business needs. These applications can be expensive to produce, invariably take much longer than expected, and often fail to deliver what the business expected. The gulf between IT and the requirements of business grows ever wider!

As communications technology evolved rapidly the core providers failed to recognise that the one constant, unchanging factor was the fundamentals of how business worked. ERP and other packaged pre-built application suppliers believed they knew best how business functions worked and that one department e.g. purchasing should be the same in every business. This may be true for a function like payroll the reality is every business is different and needs to be able to differentiate from competitors.

Business essentially has not changed, rather it has evolved, but it is a now slave to IT and what IT can do. Is that the way it should be? Is it not time to hand the business process back to the business stakeholder, to the people who really understand business? In essence business is actually quite simple but IT, driven by the industry giants, has made it complex by mixing the “I” for Information with “T” for Technology. The challenge to separate business “Information” from “Technology” is on the agenda and pioneers have already made substantive progress

What are the business fundamentals?

Going back to basics just what does make a business? It is People and their daily Tasks; these are the drivers of any business and they are the source of all information.

The logical step to building a software solution is to find a way to recognise these task “types” and then to express them in a codified and generic way. The objective is to effectively separate these tasks from the ever-evolving delivery technologies, which include core enablers such as operating systems, application servers, web technologies and IT systems architectures.

Where are we now?

It is a fact that almost all such core-enabling technologies that underpin both packaged or custom-coded applications have become commoditised with wide choice including open source code. This removes the edge that the large technology driven companies have exploited in the past. The new wave of web-driven packaged application suites is being heralded, with a new web services orientated architecture (SOA), as delivering next generation solutions. However, whilst SOA will undoubtedly help with simplifying connectivity between systems

the reality is that these new “pre built” suites are not much different from their predecessor prescriptive applications.

Business knowledge and what is best for the customer are beginning to emerge as dominant over technology speak. The one area that holds back such delivery is the continuing divide that still exists between “business” and “IT”. Business Process Management (BPM) has been a step in the right direction. However BPM has not recognised the importance of the impact of separation of business fundamentals from delivery technologies.

The future – Why HIMS and TOA?

HIMS has now risen to near the top of the agenda, driven by two imperatives; the deployment of web applications with people at source and business compliance issues which have people at core. Additionally the next generation of users, brought up with the Internet, will have an expectation that their workplace will support the logical and intuitive way they work through their desktop.

The broad scope of HIMS will include the systems that control and/or record any human interaction with “computers” in the business. However, at the application end the only interaction that people have is via their allotted tasks in the business. All the large suppliers are recognising the relevance of a task approach to control user access to their systems and have added this human interaction aspect to their suite of tools. But however good they may be, this only perpetuates the component approach to building applications using their proprietary products.

TOA goes a step further and has identified the “task types” in a business. In reality there are less than fifteen tasks used to cover any aspect of any process undertaken by people (or a machine if required). Such “tasks” can be expressed as data and this is the heart of a new way that allows the separation of core business logic from delivery technologies. People and tasks are not function limited therefore a TOA has a huge range of capability.

The consequences of TOA have been profound in that it is now possible to develop in an entirely “data centric” environment. This is achieved simply through a graphical interface incorporating the pre coded “task types” that are generic to all business situations. All requirements of BPM, rules, state, time and user interface are all contained in one development environment. The enabling delivery technologies are incorporate in the core TOA and installed at the choice of users but are separate from the business logic. The specification is expressed in business language that focuses on business requirements. Thus the gap between “business” and “IT” is closed.

Application Development will become a Commodity through a TOA

The gap between “business” and “IT” has evolved over thirty years, and it now is long overdue to be addressed. This will require a big step to be taken to see a

mature model that removes any dependence on technology to build next generation applications.

Why? Because it requires a fundamental re-think on how to develop business driven application software. This is a tough call for technology-driven suppliers and could have consequences for their existing core business.

By making business “tasks” the driver of application development, and in reality there are very few, the future evolution of TOA will also render it as a commodity for the user. However, the transition will be hindered by the legacy of thirty years, so expect to see TOA adopted as an evolutionary implementation.

TOA is disruptive?

Disruptive is a term used where a product can have the potential to change the way in which a market works. The fact is that a TOA is a new paradigm and the final part of the evolution of application development. It will allow the supply of business software to eventually become a commodity, just as all other core aspects have become.

Using a TOA to “application build”, smart front line developers will grasp the opportunity to build custom solutions quickly with valuable IPR staying with them and/or their customers. The large conventional IT suppliers will be forced to change and even move to the front line by the acquisition of consulting firms and, in the short term, some securing their ecosystem by acquiring “partners” with local and or vertical knowledge. The real challenge is going to be around price and operational cost base, as with the use of a TOA entry price to custom application build is dramatically lower. This will favour smaller local suppliers whose reliance on being “fed” by the ecosystem on which large core technology suppliers currently rely will eventually disappear.

In 2003 Nicholas Carr published an article in the Harvard Business Review “IT doesn’t matter” and caused much anguish amongst suppliers. Well he is largely right. With a TOA approach technology becomes subservient to the business. It is how you differentiate the running of your business that matters. A Task Orientated Application does just that for business people through simple business thinking and logic. The real winner is the customer.

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