
Software Development Snapshot

Applications, languages and tools in use in 2008-9

This is one of a series of papers which draws on research conducted in partnership with The Register in October 2008. In this paper, we focus on application development, current initiatives and the tools and technologies being used.

By Jon Collins, May 2009

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The logo for The Register, featuring the text 'The Register' in a bold, sans-serif font with a small globe icon to the left of the word 'Register'.

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In a nutshell:

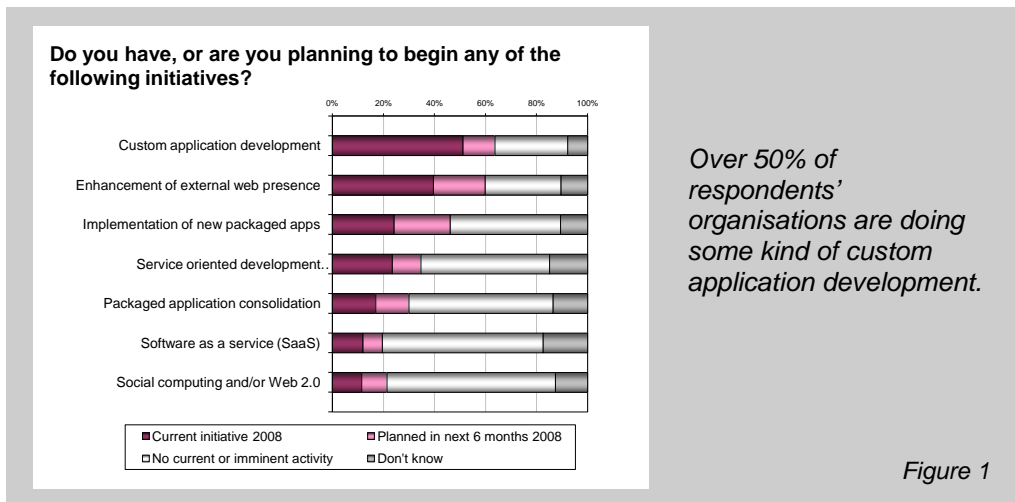
Despite the downturn, software development continues to roll on. There are unlikely to be any major revolutions in the next year, not only given the downturn but also based on the relative maturity of the technologies. However, as the platform continues to solidify, this offers a stable base for richer, Internet-based front ends.

Key points:

- Custom application development remains prevalent in organisations of all sizes
- Traditional languages hold their own across the board, but scripting languages are more common in smaller companies.
- Visual Basic is very much a legacy language, and Borland will struggle to be more than a legacy platform
- However frameworks such as Adobe Flex are of growing importance
- Development tools are of little interest to smaller organisations, in their current form

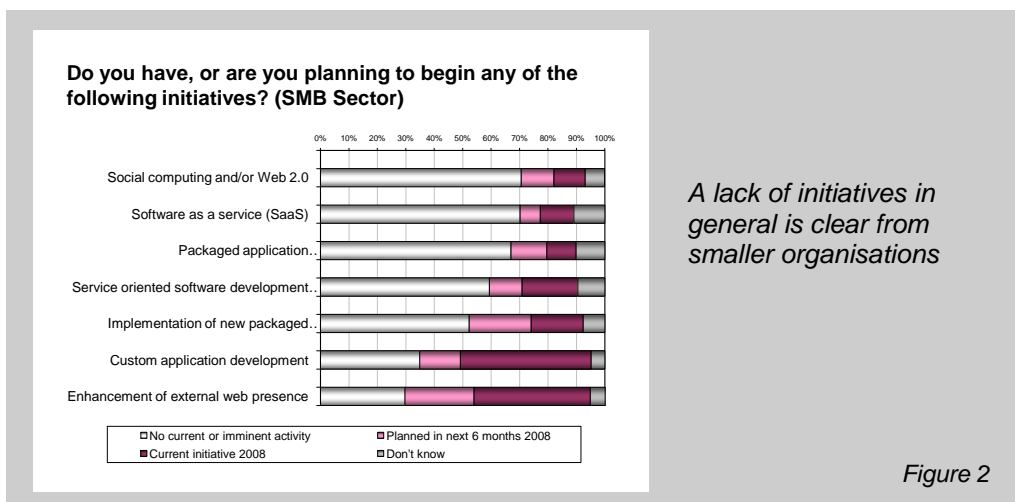
Software development is business as usual

Software development is alive and kicking. Indeed, we say this every year – it's a useful counterpoint to the blog-accelerated perception that the only coding taking place these days is the clever use of scripting languages to customise packages or develop Web application front ends. While the pundits may wax lyrical about mash-ups and Ruby, the majority of developers are quietly getting on with building the software and packages upon which today's organisations depend (Figure 1).



Indeed, it is notable that 'Web 2.0' is at the bottom of the list in terms of current initiatives. Much higher up is the need to enhance an organisation's external Web presence through software. What this tells us above all is that business is proceeding apace –work that was started a few years ago in terms of 'harnessing the power of the Web' is still in progress. It is notable that the order and priority of these initiatives differ little from the same time that the questions were asked a year ago: this is far from a 'boring' finding, more importantly, it suggests very strongly that IT vendors and service providers need to keep their eyes on the real ball, helping their customers develop mainstream applications.

There are some interesting differences between larger and smaller organisations. Most important is the information we can glean about what isn't happening, by reversing the bars and seeing which activities are not imminent/current – particularly in smaller organisations (Figure 2). Notably, less than half of the organisations surveyed are doing anything much other than custom apps or Web development.

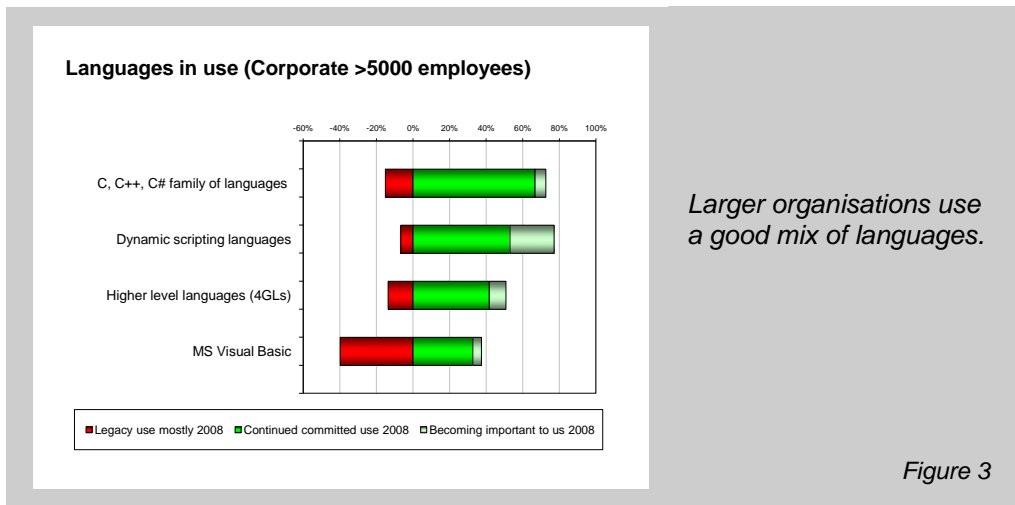


Even 'progressive' approaches to SOA appear to be given short shrift by smaller companies. This is a very traditional perspective which should temper any views we may have about what organisations could, or should be doing in software development terms.

What languages are in use?

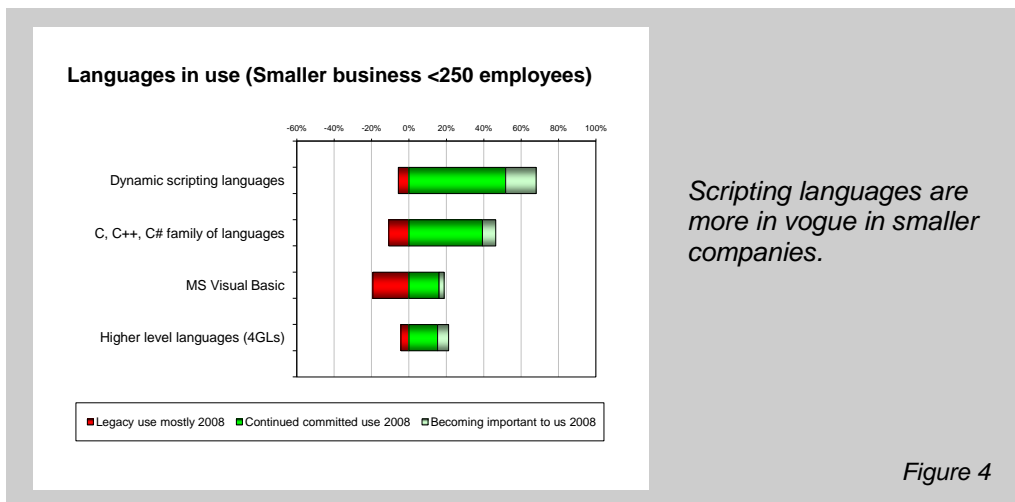
When we look at typical languages in use, we can see some significant differences between larger and smaller organisations, and it is here that some of the above starts to make more sense. Larger organisations still spend most of their time working with C-type languages, though there is a good

mix of other language types (Figure 3: Java is not shown, but we would expect it to be similarly prevalent).



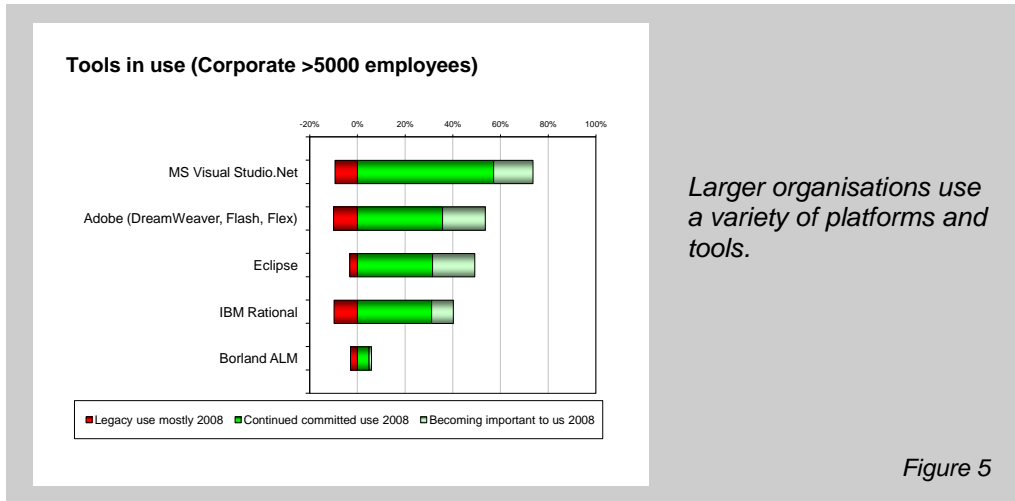
Notable of course is how Visual Basic is seen as a legacy language. Having said this, its actual use has not gone down significantly since a year ago, suggesting it is of continued use despite less new development.

Middle-sized businesses are half way between smaller and larger organisations in terms of language use, so we do not show them directly. Scripting languages are more prevalent in smaller organisations and their importance continues to grow (Figure 4) – a factor we consider below, with respect to adoption of Adobe Flex.

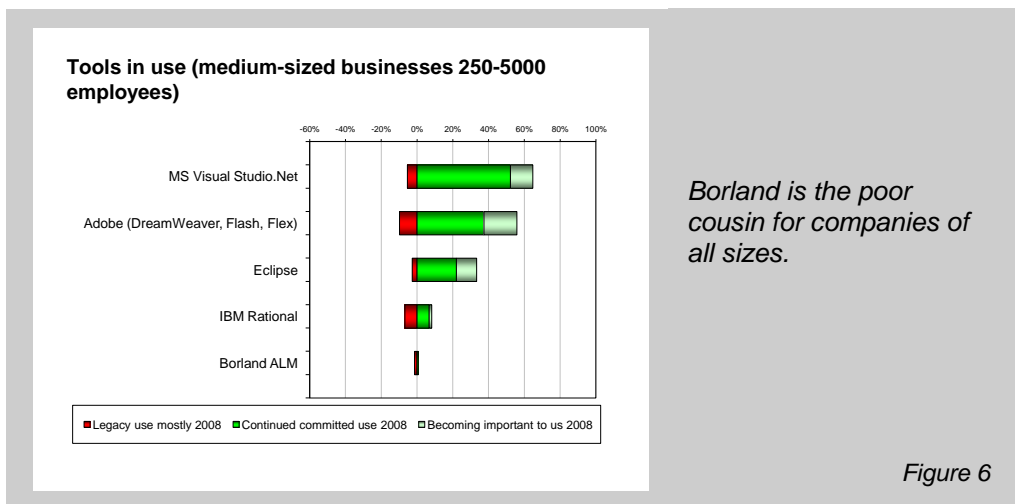


And what of tools?

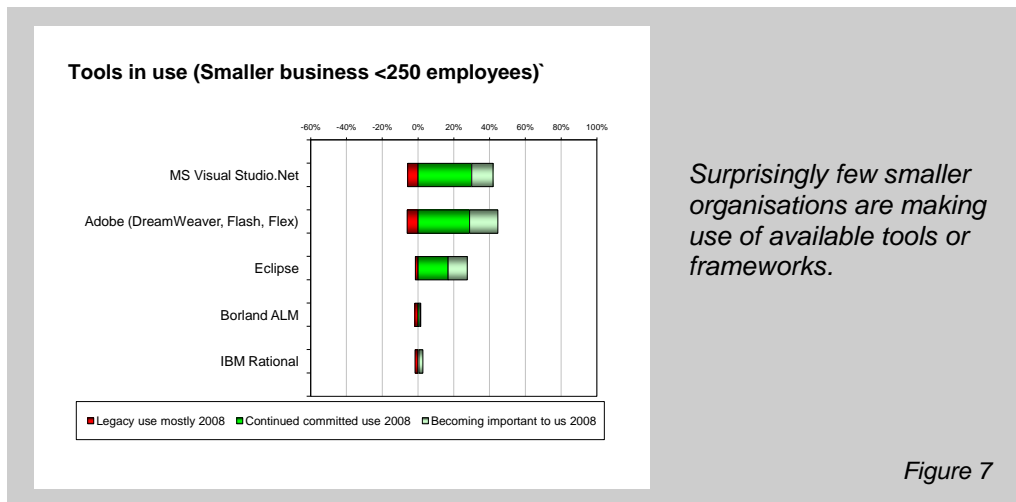
Turning to use of tools, Visual Studio may be ahead in terms of use, but there isn't a clear 'gorilla' in the market – a range of tools and frameworks exists across the board. The adoption of Adobe tools such as Flash and Flex is worth a mention: while such tools arguably address different needs (and we've included Dreamweaver for good measure, which complicates things further), there does seem to be a significant level of interest in organisations large and small. Eclipse holds its own in all sizes of company – the attraction is that it offers an open source platform, which many vendors then plug into or extend. Figure 5 shows the larger company view.



Borland does not have a great showing – despite some good tools, the figures here can only suggest that it is seen as decreasingly relevant. Indeed, it is probably only market inertia that gives it a continuing foothold. In medium (Figure 6) and smaller (Figure 7) companies it barely registers at all. Rational is also less well represented beyond larger companies, but it continues to hold its own in the enterprise.



What is perhaps most interesting about the smaller company view is that, despite 50% of such companies doing some kind of development work, and 40% using C-based structured languages, only a quarter are using any kind of framework to do so (Figure 7). The implication perhaps is that despite best efforts to simplify development tools, they still remain over-complicated for the smaller organisation, if indeed they are known.



Conclusion

It is difficult to think about any ongoing IT efforts without some reference to the downturn, and application development is no exception. Overall, there appear to be two forces at play: market turbulence, making it difficult to judge too far ahead; and increased requirement to justify what is being done. Given these opposing forces and given the application development world's slow but steady momentum, it appears unlikely that we're going to see any major changes in the next year concerning how development is done, or the tools used to do so.

Despite this, and in the knowledge that we would be ill-advised to second guess any major 'waves' happening in the future, our interest is certainly piqued by the adoption levels of Adobe Flash and Flex. Rich Internet Applications (RIAs) offer a converged path between getting the most out of back-end systems, employing the Internet as a delivery mechanism, and keeping a focus on usability, factors also recognised by Microsoft with its own RIA environment, Silverlight. The responses we collated in this study give us only an indicator, and it is certainly not for us to say one mechanism is better or worse than another, but we shall continue to watch this space in the future.

In the meantime, right now more than ever we need to consider the adage, 'If it ain't broke, don't fix it.' While we will undoubtedly see application platforms, languages and tools continue to evolve, the very last thing required right now would be for any sweeping changes.

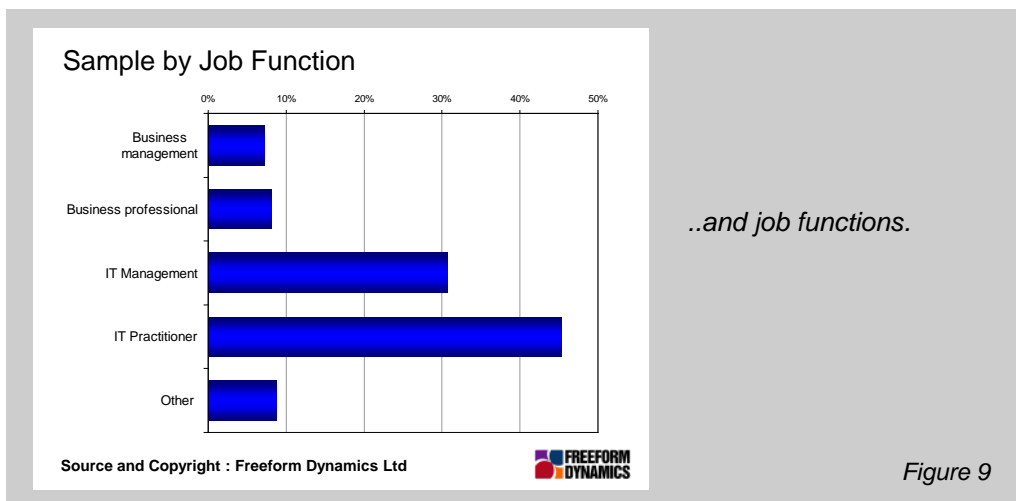
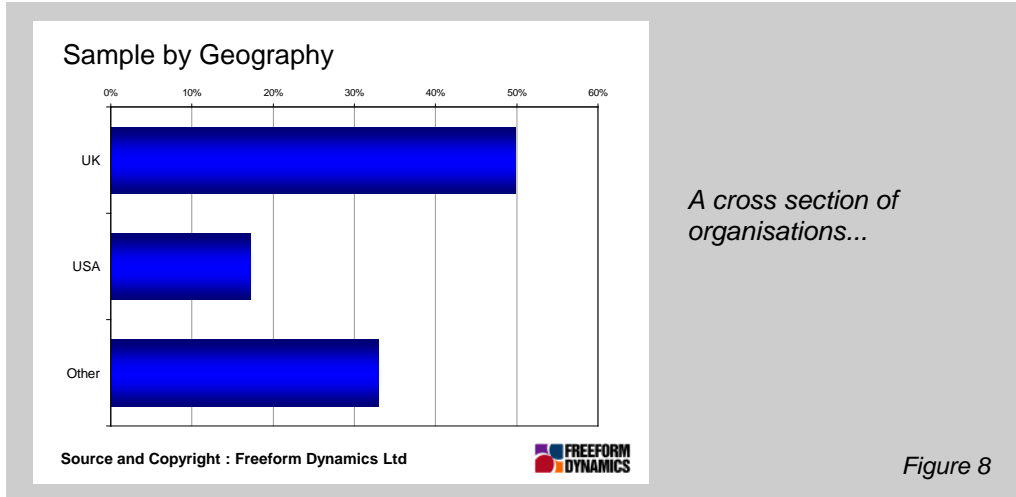
Note on research sample.

The findings here are based on an online research study conducted in October 2008, which garnered 1125 responses. As a result of the online nature of this study, the respondents will have been self-selecting, and drawn from a technology-literate group. We are also conscious that the current financial climate may cause some variability in responses that might be influenced by ongoing economics. As the study covered a broad range of areas and did not particularly dwell on financial aspects we do not believe there will have been any significant skew towards one technology area or another; nor do we believe there will have been too much variability due to economic criteria in this case.

Appendix A

RESEARCH SAMPLE

The research sample was 1125 respondents, distributed as shown in the figures below.



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