FORMS DESIGN AND BEST PRACTICE IN DATA CAPTURE

By Steve Beats, head of R&D, at DRS Data Services Limited

In our modern, smart-carded, read-on-screen, buy-online, pay-by-phone world, must we really care about 'best practice'? Surely, the concept is about as relevant to cutting-edge data capture as flint knapping is to precision engineering.

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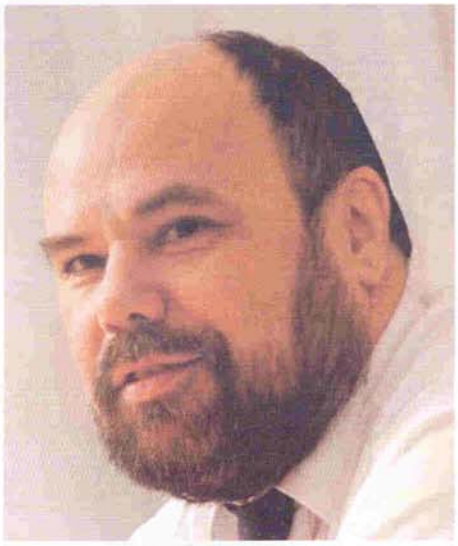
Technology makes difficult jobs easy, large jobs small and previously impossible jobs, possible (according to the marketing literature anyway). Our industry is overflowing with new technologies claiming to make data capture cheaper, faster and more accurate; even offering to replace paper completely but always failing to at any significant scale.

So forms remain with us, but document scanners are improving. They go ever faster, handle ever wider ranges of paper size and weight and offer higher resolutions at lower prices. We've never had it so good. There's a technological fix for everything.

If new technology avoids the issues associated with traditional data capture, then the best practices developed to mitigate those issues are redundant, aren't they? Is 'best practice' synonymous with 'latest technology' now? No, it isn't! Best practice is not about the method but about the exceptions that arise in the method and the best ways to mitigate them. Electronic processes' best practice has not been covered here but the best practices learnt over decades of capturing data from paper remain as relevant as ever. Here are a few examples:

Form Design and Layout

A confusing form with too many response areas and duplication of information will be filled in badly. No technology can fix responses that were entered incorrectly, not without complex, unreliable validation rules anyway. Always execute good designs.



Paper Quality

Your scanners handle cheap, thin paper do they? The cost may be attractive at £100 a tonne less than good 90gsm stock, but when you get your forms back, you'll find new issues. Paper jams in auto-feed mechanisms reduce throughput. Ink bleed-through increases inspection and correction workloads. Marks in the paper stock are interpreted as writing. That small saving in paper cost is lost many times over in exceptions and missed Service Level Agreements (SLAs). Use high quality forms, accurately printed on good paper.

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Data Type

OMR, numeric or alpha fields? OMR (tick-box) data is by far the fastest data to capture. On dedicated OMR scanners, validated data rates of more than 2000 marks per second are easily achievable. On image-based systems, tick boxes are captured and validated at least 100 times faster than ICR fields. Numeric-only ICR is five times faster than alpha-numeric.

Resolution

If forms are keyed from image, then 100dpi, compressed JPG is fine. 200dpi bi-tonal will do for ICR. Keep images as small as possible to reduce network and storage needs – still valid considerations even in this era of cheap bandwidth and storage. A postal van full of forms will travel cross-country far faster than you can affordably transmit the images of those forms – even today!

So when you procure your next data capture solution, solicit vendors with experience. Be wary of 'new kids on the block' offering solutions based on one technology. All too often they have mistaken 'latest technology' for 'best practice', a certain recipe for unexpected delays, errors and costs. ■

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