

CACI (UK) is a leading supplier of IT solutions, specialising in providing systems integration, software applications and ICT consultancy services to organisations from across the public and private sectors.

Since 2001 the company has developed expertise in Census processing, starting with the Irish Census, which occurred in 2001 and 2006.

Processing a Census is one of the biggest projects a Government will ever undertake. It requires support from thousands of staff and community volunteers, not to mention a significant financial investment in technology and processes to make sure the project runs as smoothly as possible. One of the most challenging aspects is the capture of paper-based Census forms. Speed of capture, accuracy and confidentiality are paramount.

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A critical process

The Census is a highly visible process; the Public needs assurance that nothing will be lost or incorrectly processed. Every page is personalised, and therefore unique, so the integrity of captured data must be guaranteed.

For the 2001 Irish Census, CACI reviewed alternatives and purchased scanners from the Kodak 3500 Series, which became the property of the client and were re-used for the 2006 Census.

By 2007, when CACI decided to bid for the Scottish Census contract, scanning and capture technology had advanced considerably. Leading edge scanning solutions were capable of scanning significantly higher volumes more accurately, whilst using intelligent processes to extract document data on-the-fly.

Planning for the future

In addition to Census-related technical considerations, CACI conducted a business review, which resulted in the decision to establish a Managed Services operation in West Lothian, to handle value-added capture projects on an ongoing basis.

“We needed a robust and reliable high volume scanning solution for the Scottish Census, which involved capturing uniform paper-based documents. In parallel we were looking for a scanning platform that would accommodate a wide range of mixed documents to support applications such as medical records, financial application processing and digital mailroom,” explains CACI Director Mathew Cooper.

“CACI was about to make a sizeable investment in high volume scanning technology. We wanted to leverage this investment and diversify our business over the long term,” said Cooper. “We had a long-established relationship with Kodak, ibml’s reseller in Europe,” continues Cooper. “We liaised with their scanning team and they recommended the ibml ImageTrac High Volume Scanning Platform.”

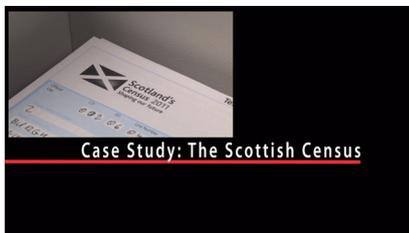
An advanced and reliable solution

ImageTrac offers the fastest and most reliable throughput in the industry. It also has in-built barcode technology, its own hard drive and capture software, which eliminates the need for third party software. CACI evaluated ImageTrac and agreed with Kodak’s advice; the project team ran rigorous trials to test accuracy, performance, security, data integrity, reliability, ease of use and integration capabilities, which ibml passed effortlessly. In 2008, supported by Kodak, CACI selected ibml to process the 2011 Scottish Census.

The company purchased four ImageTrac scanning platforms with standard configurations. Initially they took delivery of two units to conduct a rehearsal during which a sample of Census forms were printed, scanned and tested to check the quality of barcode data captured. By 2010 the trial was complete and all four units were delivered.

These units allow CACI to scan between 240 and 480 pages per minute; they require just one operator per scanner and one supervisor to ensure smooth running.

When completed Census forms are delivered to the processing centre they are receipted and allocated a unique physical location in the document warehouse. The entire questionnaire remains in that box as it is moved around the scanning centre to ensure traceability. All forms are guillotined to create stacks of loose leaf pages that are scanned and checked for irregularities. Exception handling is very low; if a form is scanned twice, the ImageTrac detects that the incorrect number of pages has been captured or a document type is unrecognised, and they are flagged for further scrutiny.



CACI operates a stringent quality control process. Every Census page is tracked at every stage of the process for anomalies or inaccuracies. If a box of Census forms is dropped after the forms have been guillotined, for example, it's essential to recognise whether any forms are missing or presented in the wrong order. It's important to do this at point of scan, rather than during a downstream process, to reduce the cost of identifying and investigating exceptions.

Image quality must be high, as CACI must achieve ISO standards. Each form bears a unique barcode. Capture software reads data from the barcode and the image and then performs verification checks. On the rare occasion that there is any uncertainty relating to data integrity or accuracy, the forms are submitted for manual repair. Once extracted, data is sent to the General Register Office of Scotland for statistical analysis.



Assuring uptake and acceptance

When the Public are assured that their data will be handled sensitively and recorded accurately, there is a high level of uptake which benefits the entire community. "ibml's ImageTrac has performed exceptionally well throughout the 2011 Census process," said Cooper. "Scanning started in May, is due for completion by the end of October 2011 and results will be published in 2012. We are on schedule and there have been no significant technological issues at all. In fact we have also used ibml scanners to process the 2011 Irish Census in the same timescale."

Kodak, CACI's tried and tested service provider, delivers support for the ImageTrac Scanning Platform throughout EMEAR. "On the rare occasion we call upon Kodak for support, they seem as committed and dedicated to the success of our operations as we are," said Cooper.

Currently the four ImageTracs are used solely for scanning Census forms although in the future, when the Census project is complete, CACI will proceed with plans to establish a full service high volume scanning centre that provides value-added intelligent capture solutions to clients in a variety of sectors at affordable prices.

For more information visit www.caci.co.uk

