



IBML ImageTrac Dominates Scanner Evaluation for 2010 Census

Lockheed Martin Selects ImageTrac to Scan 90 Million Census Forms

The 2010 US census is more than just a nationwide counting exercise. The demographic information it gathers has tremendous impact on every citizen of the country through census-driven allotment of financial resources and political representation. In that sense, it's actually one of most significant political events for the country, outside of the presidential election itself.

A critical component of making sure the census-taking process is done accurately is the Decennial Response Integration System (DRIS) program led by Lockheed Martin.

Ensuring that all data collection, processing and analyzing components of the DRIS work reliably as well as provide value to the program, and ultimately, the US Census Bureau is essential to the program's success. Functionality enhancements for the next census will require color imaging for the first time. Lockheed Martin, the prime contractor for the DRIS program, did an extensive evaluation for a scanning platform that would provide the highest image quality possible, while easily integrating into the system's architecture. As a result, Lockheed Martin recently selected the high-speed ImageTrac® Color Scanning Platform from Imaging Business Machines, LLC (IBML) for its DRIS scanning solution.

The Application

The census is a project of immense importance and proportion. It generates more than 90 million forms, and all 90 million must be processed within 90 days of receiving the information. Ten percent of the census forms consist of a six-page 8.5" x 11" booklet, while the rest are 11.5" x 25" short forms. After gathering the completed paper forms, scanning is the next step to bring them into a digital data stream so the information can be analyzed, applied and archived.

The information must be handled carefully to ensure no errors result from misfeeds, double feeds, creasing, scan lines, or other problems. Accuracy is critical. If data is misread or illegible, census results could be skewed, and that could affect political representation and allotment of federal funds.



A Rigorous, Comprehensive Evaluation

With uncompromising requirements for accuracy, volume and image quality, Lockheed Martin set stringent requirements for the scanning technology needed for the 2010 census. It had to stand up to the toughest conditions, and Lockheed Martin made certain the evaluation would bring forth the best technology and value for the project.

The high visibility and long-term national impact of the census demanded an extremely comprehensive evaluation. The evaluation compared all suppliers' equipment in four categories:

- Operational issues
- Image quality
- Technical features
- Business considerations

The four-month test duplicated real-world operations using material, volumes and samples of the 11" x 25" census form. Actual operators ran the scanners, making the evaluation more than just a function and features comparison. According to Julie Dunlap, Lockheed Martin program manager for DRIS, "The evaluation was extremely challenging, because there is no margin for error in the census. The ImageTrac performance stood out, making our decision easy.

ImageTrac: A Clear Winner

"IBML emerged head-and-shoulders above the other scanners evaluated based on solid technology, application understanding and the IBML team's willingness to work with us," said Mario Hendricks, DRIS paper channel lead for Lockheed Martin.

ImageTrac is a production-grade, color-scanning platform designed and built in the United States. The ImageTrac systems used for the 2010 census will include SoftTrac® application software and DocNetics™ BarCode Recognition software from IBML.

DocNetics, part of the SoftTrac interface software, allows greater control, management and customization of scanning workflow. DocNetics adds dynamic intelligence to inline processing and accelerates the transformation of paper-based content to digital information.

Outstanding Operational Ease

Lockheed Martin trained an operator on all four evaluated scanners, and the IBML scanner outperformed the other scanners in terms of operation and ease of use, thanks to the simplicity of the SoftTrac user interface. The operators described SoftTrac as very easy to use, and the SoftTrac interface helped them work quickly and accurately. Physical paper handling is also simple and jams are quickly cleared from the ImageTrac transport, ensuring minimal recovery time.

IBML proved fastest on document transporting and forms throughput as well. This is an extremely important category for the census, given the tremendous volume of documents to be processed. "IBML's throughput will allow us to reduce the total number of systems from 150 in 2000 to 22 for 2010. This will dramatically reduce the overall management and maintenance for this project," said Fred Highland, Lockheed Martin chief systems architect for DRIS.

The Leader in Image Quality

When images are captured for use in electronic environments; quality is critical



to ensure the integrity and legibility of the contents. In this critical test, IBML was number one overall for visual representation, automated recognition and consistency. IBML also placed in the top two for its ability to handle and transport paper without damage or marking. When systems leave wheel marks on paper during transport, it can be harder and more time-consuming for downstream systems to interpret and act on the information.

Unmatched Barcode Reading

Barcode reading is essential to successful processing of the census forms. Each form has six barcodes in different orientations on front and rear sides. The barcode data identifies the individual documents and assists to prevent double feeds of two documents moving on the track one on top of another. If double feeds are missed and passed into the workflow, an operator has to locate the document and rescan it. It's a time-consuming correction in a schedule with no room to spare.

IBML was the top-ranked vendor for double feed prevention and detection with features other vendors could not match. DocNetics BarCode Recognition recognizes multiple barcode types inline in any orientation, including 1D and 2D formats. DocNetics BarCode Recognition will read the six census barcodes on front and back pages to match documents inline and catch double feeds when barcodes don't agree. As a result, Lockheed Martin can avoid extra time and labor to deal with double feeds. Jim Jones, technical lead for the scanning evaluation for Lockheed Martin, said "IBML DocNetics BarCode Recognition provides us with an additional level of data integrity to ensure each form is captured completely."

ImageTrac Evaluation Results

Operational Issues #1 overall

- Fastest forms throughput
- Ease of use
- Capabilities of user interface
- Simplicity of interface
- Easy to clear jams
- Physical paper handling
- Touch screen features

Image Quality #1 overall

- Visual representation
- Automated recognition
- Consistency
- Paper handling

Technical Features #1 overall

- Barcode reader
- Integration with database
- Duplicate prevention/detection

Business Consideration #1 overall

- Corporate stability
- Maintenance network
- Telephone support
- References

Seamless Integration with Census Applications

IBML offered unmatched capabilities that gave them the top ranking for technical features, especially the ability to integrate the SoftTrac application with the DRIS backend. As a result, census information can begin to be processed faster because images and data can be exported directly to the DRIS application without additional data capture software.



Impressive Support and Service

The evaluation took into consideration the vendors' corporate stability and maintenance offering, along with telephone support and customer references. IBML stood at the top in meeting these expectations. Interestingly, cost was not a major factor in the decision. As all vendors were similarly priced, Lockheed Martin made its selection according to the solution that offered the most value.

Cohesive, Nimble IBML Team

Lockheed Martin also selected IBML based on its cohesive team response and nimble service. The IBML team clearly communicated their eagerness to support Lockheed Martin and demonstrated their understanding of the magnitude of the job. IBML took steps to mitigate any risk for Lockheed Martin.

A Scalable Solution for Any Business

While few business applications can match the scope and schedule of the US

census, every business with production-level scanning needs can benefit from the unmatched capabilities of the ImageTrac Scanning Platform. The same IBML value and functionality that won the prestigious census business can translate and scale to your specific situation.

ImageTrac can help if your business needs:

- Streamlined efficiency for tight processing windows
- Accelerated conversion of paper to digital content
- Greater ease of use
- Effective ROI and cost per image

If you are making a decision about scanning technology, let the rigorous Lockheed Martin evaluation be your guide. IBML proved to be the solution for demands and challenges of the 2010 census. Your business should not demand any less.



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