

# ASRC's Exploration of NASA

## Re-engineering Document Imaging Workflow Inefficiencies

### The Case

According to management consultant and writer Michael Hammer, "Companies must be reengineered, which necessitates starting anew, going back to the beginning to invent a better way of accomplishing tasks. The process requires a leader with vision using information technologies, consulting closely with suppliers to reduce inventories, and empowering employees so that decision-making becomes part of the work."<sup>1</sup>

According to ASRC Aerospace Corporation, re-engineering of processes at the Center for AeroSpace Information meant a better business process requirement for information management and database building. The in-place system was based on outdated technology and equipment and did not support the need for real-time scanning of the National Aeronautics and Space Administration's (NASA) information.

Undocumented, antiquated systems forced the establishment of a completely re-engineered document conversion process. The information management solution ASRC implemented, enabled an improved throughput and the ability for authorized NASA staff to access reports in searchable, PDF format online via a secure login portal. This re-engineering has presented ASRC with the ability to provide a 'Scan-on-Demand' service, where NASA employees can access the report's metadata online and if the report has not yet been scanned, they can request an electronic version which is completed and accessible within three days.

<sup>1</sup>Hammer, Michael & Champy, James. (2001). Reengineering the Corporation: A Manifesto for Business Revolution. HarperBusiness: New York.



ASRC Aerospace Corporation is a highly diversified technology company established in November 1997 and certified by the Small Business Administration as an 8(a) Alaska Native Corporation (ANC). They have grown from 25 employees in 1997 to over 750 today. ASRC Aerospace performs on 70 contracts with over 450 task orders for 15 major customers.

ASRC Aerospace operates through three principal business segments: Engineering Services, Research and Development, and Information Systems/Information Management. ASRC Aerospace's core competencies within the three business segments consist of Systems Engineering and Operations, Information Management, Hardware Maintenance and Operations, Hardware Electronics, Software Engineering and Spaceport and Range Research and Technology. The segments are comprised of multiple operating units engaging primarily in U.S. Government contracts.



The Chesapeake Building  
9017 Red Branch Road, Suite 102  
Columbia, MD 21045

[www.qualityassociatesinc.com](http://www.qualityassociatesinc.com)  
800.488.3547

## The Challenge

ASRC acquires and manages NASA STI (scientific and technical information), dating back to 1962, in Hanover, Maryland. These multiple-page technical reports, some of them very old and delicate, contain both greyscale and color images adding another complication to the conversion process and quality of the files. Searchable images were not available. If a NASA employee requested a copy of a report, that document would have to be printed and shipped to the requestor.


NASA's requirement to ASRC was to re-engineer the process of the current information management system to provide real-time, electronic delivery of scientific and technical information. The initial step of this requirement was the conversion of over 165,000 existing TIFF files to PDF. ASRC estimated this conversion would take nine to twelve months.

## The Solution

Quality Associates, Inc. (QAI) developed a conversion solution that allowed ASRC to convert over 165,000 TIFF files to PDF in one-third of the estimated time frame. In addition, QAI provided a quicker solution for scanning the daily incoming reports, in real-time. Improvements in scanner features and functionality resulted in higher quality images and enhancements in OCR recognition resulted in higher quality, more searchable PDF images.

QAI then streamlined a better business process for information management and database building by decentralizing the capture requirements, providing services such as programming release scripts, providing a quality control mechanism for validation, and linking the input of the electronic files to LiveLink. The final process architecture is a distributed scanning model, which improved efficiencies in the capture process.

The technology and integration services QAI provided resulted in an efficient process that allowed ASRC to meet the real-time scanning requirements and addressed the color and greyscale image component. ASRC now benefits from a closed-loop imaging workflow process while eliminating much of the manual document shuffling and reducing printing and shipping costs. Improved throughput has led to a better use of human resources and has resulted in an increase in throughput.



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## The Business Value & Benefits

- Increased quality of images
- Converted TIFF to searchable PDF
- Increased throughput
- Eliminated manual workflow
- Electronically accessible PDF files via a secure portal
- Scan-on-Demand service
- Better human resource allocation
- Reduced printing and shipping costs
- Backfile conversion of TIFF to PDF in one-third of the original estimated time
- Improved business process efficiency

## The Technologies

- ABBYY Finereader
- Adobe Acrobat Products
- Doculex
- Fujitsu 4097 Scanner
- Fujitsu 4990C Scanner
- Kofax Ascent Capture
- Kofax Adrenaline
- LiveLink
- Mekel 565GS Microfiche Scanner
- Rimage