

# Software to Manage the Unmanageable

## Originating Technology/ NASA Contribution

In 1995, NASA's Jet Propulsion Laboratory (JPL) contracted Redmond, Washington-based [Lucidoc Corporation](#), to design a technology infrastructure to automate the intersection between policy management and operations management with advanced software that automates document workflow, document status, and uniformity of document layout. JPL had very specific parameters for the software. It expected to store and catalog over 8,000 technical and procedural documents integrated with hundreds of processes. The project ended in 2000, but NASA still uses the resulting highly secure

document management system, and Lucidoc has managed to help other organizations, large and small, with integrating document flow and operations management to ensure a compliance-ready culture.

## Partnership

In the mid-1990s, NASA was pushing toward process-based-management for documents and procedures. John Casani, JPL's chief engineer, was given the assignment of implementing this new system, but after scouring the market for commercially available software, he found none that was powerful, comprehensive, or secure enough for the task of providing more than 8,000 documents to

over 7,000 users located on seven continents, and that would allow JPL to become ISO 9000 certified.

JPL partnered with Lucidoc to create the software solution. NASA employed a service contract to streamline the process, and the result was an efficient partnership and a quick, thorough solution to the problem.

JPL uses the Lucidoc solution to create a living database of ever-changing and highly integrated procedural information. The software is an HTML, object-oriented, workflow management system that controls guidelines and standards across the laboratory and the various campuses. One of the key advantages is that the user can access the system through a standard Internet browser.

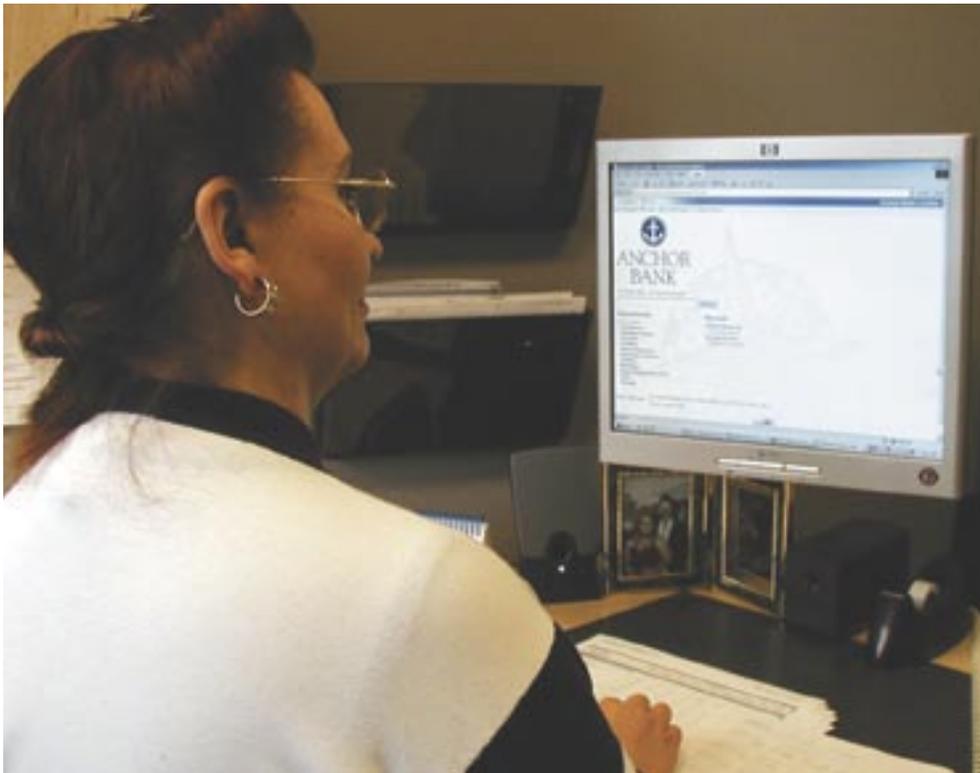
## Product Outcome

Having proven successful at cataloging, organizing, and maintaining the wealth of information NASA required, Lucidoc was uniquely prepared to offer the same services to a variety of other industries. Lucidoc has been effective in the banking and health care industries, as well as in the government aerospace industry.

The Lucidoc system automates the operational life cycle of document management and compliance with several key features. It offers multilevel communication of information between departments and staff, and fosters collaboration between departments and facilities on feedback, changes in documents or procedures, and streamlining the approval and sign-off stages of document flow. It provides document creation and revision capabilities, including links to related documents requiring changes. Unlike typical document management systems, which simply delete outdated documents, Lucidoc archives and updates files, making it a living document system with an active history.

The Lucidoc system enables an organization to affirm that compliance information is distributed, authoritative, consistent, complete, and managed.

The information in the Lucidoc system is automatically distributed to all of the appropriate people, which



Employees at Anchor Bank, a state-chartered mutual savings bank, headquartered in Aberdeen, Washington, are divided over 14 different branches and across 18 separate facilities, yet they are united by the Lucidoc document management system.

is one of the key goals of any document management system, because without access to the information, the process stalls, requiring time-consuming delays. In many instances, the Lucidoc system replaces binders and files that are difficult to keep current and oftentimes accessible only to a few people in specific locations.

Furthermore, the information is authoritative. It is constantly updated and made relevant, and it is the same information available to every other user on the system. It has been checked and validated; the right people have been given the opportunity to sign off when needed, thereby giving the necessary approval.

The information found on the system is consistent, because it is all regulated within the same document management system. The possibility of redundancy is reduced, and the likelihood of inconsistent answers or directions is eliminated.

In addition to being distributed, authoritative, and consistent, the information in the system is complete. It links like information to like information, and because of its Web-based approach, the system allows for thorough searching.

Finally, it is life-cycle managed. Since this is an active document management system, it accommodates revisions and changes in documents, as well as adaptations in processes.

The many facets of this document management system make it ideal for use by organizations seeking to make their procedures and documents uniform across several offices. Just as it has found a long-term home at JPL, this specialized software has found applications in the document-heavy industries of banking and medicine, and it has proven effective and helpful in both.

Community banks and credit unions are regulated by their state governments, the Federal Government, and groups such as the U.S. Securities and Exchange Commission, Fair Housing Regulators, and insurers. These financial institutions risk hefty civil and criminal penalties for compliance failures. Banks must be able to



The Lucidoc system is working to help medical professionals in California get the information they need when they need it.

show their regulators conformity and compliance through regular performance audits and prospective evaluations of their documentation. As banks move toward more and more micro-branches, like ones seen at grocery stores, this becomes increasingly difficult. The Lucidoc system provides a solution for keeping documents up to date, distributed, and in compliance with constantly changing regulations.

Anchor Bank, a state-chartered mutual savings bank in Washington State, employs the Lucidoc system to provide document management services to its 18 facilities and 14 branches. With so many locations, sending out documents to each of the offices was time-consuming and costly. The bank wanted a secure system that would automate the creation of and access to operational documents. After researching the alternatives, Anchor Bank realized that Lucidoc was uniquely suited to solve its problems. The system streamlined the document workflow process, reduced the cost of relying on paper documents, and sped the spread of knowledge.

Two additional advantages came out of this partnership: Anchor Bank now has virtually stress-free audits, as all of its paperwork is automatically updated; and, because of its intuitive, easy-to-use format, employees are finding

the Lucidoc portal useful for human resources materials and onsite training.

Lucidoc is making similar inroads in the hospital industry. The Lucidoc system provides health care staff with instant access, from any location, to the accurate procedural information and care directions they need. Information access and accuracy are the keys to providing consistent, quality care.

The Joint Commission on Accreditation of Healthcare Organizations requires that policies and protocols be kept up to date, and the Lucidoc solution allows hospital leadership to automate the review and updating processes so that staff can concentrate on quality management and care, rather than on performing an endless paper shuffle.

Lucidoc is currently being used by Palomar Pomerado Health, the largest public health district in California, with over 800 miles of territory. This district includes the 326-bed Palomar Medical Center, the 115-bed Pomerado Hospital, 2 skilled nursing facilities, 5 health centers, a surgery center, a home health program, physician referral services, and wellness classes. Prior to Lucidoc, all of the documents needed to run these facilities were managed by hand. In fact, it was one person's job to coordinate all documents for review.

The Lucidoc system provides efficient transfer of information, including electronic signatures, a near must in the medical field. It also provides nursing teams with access to an up-to-date, authoritative database with intuitive search capabilities. For example, if a nurse needs information about an obscure procedure, rather than hunt down a manual, which may be out of date or even in a locked cabinet, she can type several key words into a browser, as if she were performing a Google search. Unlike with a traditional Internet search, though, the nurse can be assured that the information she accesses is current and authoritative, because it is within the Lucidoc system. ❖

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