Supporting a company's green initiatives with Adobe® Acrobat®

Delivering sustainable returns to organizations looking to minimize their environmental footprint

Three factors typically influence technology decisions in the public and private sector: costs savings, efficiency gains, and customer service improvements. Will a new software or hardware solution help employees work faster and smarter? Will it speed product time to market, make it easier for citizens to access government services, or enhance customer buying experiences? These are all valid considerations that motivate organizations as they look to adopt new technologies.

Increasingly, another critical question is influencing corporate buying decisions—what is the environmental impact of a purchase and are there resulting "green" benefits? Around the globe, a heightened focus on environmental concerns is prompting many organizations to consider the green benefits of the technologies they deploy.

For years, Adobe Systems has been at the forefront of environmental stewardship. The company is committed to achieving the highest standards of efficiency, resource protection, and green-building practices for its corporate offices. At the same time, Adobe has long delivered technologies, such as PDF and Adobe Flash®, that expand avenues for communicating rich, interactive content while helping to offset reliance on traditional paper-based channels.

A closer look at Acrobat software highlights the environmental benefits afforded to Adobe customers. Acrobat is a well-known solution for converting most any document to platform- and application-independent PDF files, which recipients can review and comment on using free, ubiquitous Adobe Reader® software.

Addressing environmental stewardship

Many factors combine to heighten the potential negative environmental impacts of doing business. Global project teams need ready access to data and documents, requiring materials to be express shipped across locations worldwide. Project documents today are also more complex, with many interrelated variables that make it hard to package materials together and distribute them for review in an environmentally friendly manner. Equally challenging is the pace of business—people expect information to be available at a moment's notice.

This means that successful environmental initiatives need to address an organization's ability to operate with speed and agility. If not, initiatives will ultimately fail.

To fully understand the environmental benefits of Adobe Acrobat software, it is helpful to explore the impact that traditional business processes have on natural resources, waste generation, and pollution.

Paper will likely always have a place in helping organizations communicate and distribute information. However, as organizations around the globe have already discovered, Acrobat can help transform wasteful processes into more eco-friendly workflows that are less reliant on paper and manual document delivery, thereby reducing costs and improving organizational efficiency.

Paper consumption, production, and waste

The United States annually consumes 4 million tons of copier paper, 2 billion books, 350 million magazines, and 25 billion newspapers. Paper is clearly a mainstay in business, but at what cost?

Approximately 300 million tons of paper are produced worldwide annually. A cord of wood measuring 4 feet by 4 feet by 8 feet—or 128 cubic feet—produces a mere 90,000 sheets of bond-quality paper, or 1,000 to 2,000 pounds of paper. Nearly half of the trees cut in North America go to papermaking. This deforestation dramatically impacts the ecosystems of water, fish, insects, land animals, and people supported by healthy, intact forests.

Trees are not the only natural resource impacted by paper production. Chlorine-based paper processing uses up to 50,000 gallons of water per ton of paper. Additionally, breaking down wood fiber to make paper consumes energy, often in the form of coal, and releases large quantities of carbon dioxide into the atmosphere. According to a study by the Energy Information Administration, a division of the Department of Energy, the paper industry emits the fourth-highest level of carbon dioxide among manufacturers.

Organizations not only use large volumes of paper, they also ship documents and printed materials to other locations. The top express-delivery companies combined ship 7.6 million packages and documents by air each day. In addition to the tremendous quantity of paper and packaging materials this represents, there is the added impact of the jet and truck fuel used to transport shipments.

After a document has served its purpose, it is either filed away or discarded. While recycling is often encouraged in the workplace, much of the paper used by consumers is thrown away. The average American office worker throws out about 150 pounds of office paper per year, filling up 30% to 40% of landfill space in the United States. Burning used paper in incinerators or allowing it to decompose in landfills also releases chemicals from inks into the environment.

Smart approaches to sustainable practices

While many organizations have started using recycled paper and, in turn, recycle the paper they use, reducing consumption is the most effective way to go green and minimize demand on limited resources. Adobe Acrobat is one solution that delivers cost, efficiency, and environmental benefits.

Organizations use Acrobat to create and distribute electronic forms, streamline document reviews, protect sensitive information, and combine and share documents. Using Acrobat to convert a range of documents—standard text-based materials, spreadsheets, engineering drawings, and other content—to PDF enables fast, efficient distribution of the materials to audiences worldwide.

These efficiencies, in part, translate to environmental benefits. By creating and distributing electronic forms and marketing materials, organizations reduce printing and document transportation costs, and remain agile when dealing with ongoing changes to documents. Using Acrobat to package a variety of documents into a single PDF file minimizes the amount of paper delivered to review teams and eliminates the need to ship volumes of paper documents.

Bureau Veritas, a global engineering consulting firm, is one organization realizing both the business and environmental benefits of Acrobat software. With Acrobat, the innovative firm can boost its operational efficiency, oversee more projects simultaneously, and reduce its environmental footprint by electronically distributing, reviewing, and approving construction project documents in PDF. The firm can review and approve hundreds of thousands of engineering documents, including CAD files, schedules, and other documents, without printing paper and having to package items for express (manual) delivery.

In addition to saving as much as $500,000 in hard costs for large-scale projects by using Acrobat, Bureau Veritas calculated some of the environmental benefits as well. Bureau Veritas managers estimate that by eliminating paper and reducing work hours, they saved approximately 50 trees and 22,000 gallons of potable water on a typical power plant project. The ability to quickly distribute PDF files that people can review and comment on using free Adobe Reader further eliminates paper-laden scanning and printing processes.

Environmental benefits of electronic documents

Digital forms created in Acrobat and delivered as PDF documents provide clear business and environmental benefits to government agencies and financial services, insurance, and healthcare companies. Replacing paper forms with electronic forms helps organizations keep documents current, reduces data-entry errors and rework, and provides people everywhere easy access to the information and services they need.

In addition to the improved efficiency and accuracy benefits of PDF forms, organizations can also eliminate physical storage facilities, thereby lowering operational costs. Closing warehouses full of paper forms benefits the environment by reducing both paper and energy consumption, as well as eliminating the need to transport documents to and from storage facilities by truck, train, or air.

Since 1996, the IRS has offered taxpayers web access via IRS.gov to tax forms, instructions and publications in PDF, a move that yielded impressive results. The agency saves millions of dollars annually by lowering the costs to print, store, and mail tax materials—plus it has helped reduce the amount of paper discarded by minimizing the amount of paper forms that have to be thrown away when newer forms are printed.

Like the IRS, the State of Illinois, Department of Human Services, is realizing the eco-benefits associated with Acrobat software. Today, the agency uses more than 1,000 different interactive, PDF forms to capture information from staff helping citizens and from people wanting to apply for services. Paper forms that inflated the agency's operating costs, increased errors and waste, and required citizens to travel to offices to initiate services are increasingly a thing of the past. People can now fill out PDF forms online or offline using Adobe Reader.

Similarly, the U.S. Government Printing Office (GPO) recently started releasing the government's annual budget as PDF documents authenticated with digital signatures. At more than 2,200 pages—and with more than 3,000 copies produced each year—the annual budget would best be delivered in a digital format, instead of on paper. By delivering the budget electronically, the Office of Management and Budget (OMB) estimates that it will save nearly 20 tons of paper, or roughly 480 trees. In addition, the fiscal savings are estimated at $1 million over the next five years.

Environmentally friendly document packages

In some industries, shipping packages of related materials to different project team members for review, commenting, and approval is the norm. Environmental impact studies, spreadsheets, complex designs, and graphics have to be packaged together as part of engineering and construction projects. Similarly, extensive disclosures, including written testimony, photos, expert reports, videotaped information, and other content, are required for criminal cases.

Traditionally, a lack of application standards or the complexity of certain software applications has prevented electronic distribution of these interrelated materials. As a result, content was often printed and shipped for approval—only to be shipped again between parties if changes were made.

For a world-renowned architecture, urban design, and interior design firm, adopting leading technologies that provide smarter, more efficient ways of working is integral to the firm's success at serving its client base. The staff can combine materials—budgets, drawings, photos, and other items—from multiple applications into a single PDF file. Using commenting tools in Adobe Acrobat Pro, recipients can add input to plans by electronically highlighting areas, crossing out elements, and placing digital notes on documents without ever printing a single piece of paper.

Acrobat and PDF have helped a major architecture and interior design agency transform other paper-intensive processes as well. Instead of carrying stacks of paper drawings through hallways as they look for problems in recently completed buildings, employees can store all design plans as compact Adobe PDF files on tablet PCs. If problems with windows, flooring, or any other interior finish are found, they can highlight and note the issues directly on the PDF files.

In other industries, changes to inefficient practices have associated environmental benefits. For example, most major police agencies in Ontario wanted to reduce the administrative burden and cost of preparing major cases for disclosure. Complex investigations easily involved hundreds of thousands of pages of case documents combined with delivery that could total tens of thousands of dollars. The Ontario Provincial Police wanted a faster, more efficient way to handle and share the huge volume of information.

Using Acrobat, law enforcement agencies now convert case documents to PDF files. Materials from a variety of formats—native Microsoft Word files, scanned photos, drawings, spreadsheets, and other content—can be converted to PDF in a single step. The resulting files can be managed individually, or related items can be combined into a single Adobe PDF package. The benefits are clear: reduced costs across the court system, improved investigative processes, more accurate and secure data to manage cases, and reduced paper consumption and environmental impacts of shipping and storing boxes of documents.

The green imperative

Adobe is committed to minimizing its impact on the environment by conserving natural resources and supporting industry-leading programs to increase efficiencies, improve air quality, and reduce waste. To this end, Adobe provides its customers with an integrated suite of products that support end-to-end digital workflows that help mitigate the environmental impact of established business processes.

With Acrobat, organizations worldwide are reducing paper consumption, and consequently contributing to reducing the emissions and waste byproducts of paper production. Even beyond Acrobat, Adobe is promoting industry-leading solutions, such as Adobe LiveCycle® ES (Enterprise Suite) to automate a range of business processes and Adobe Flex® to develop powerful rich Internet applications that dynamically link front-end processes with back-end systems. The integrated solutions help drive the adoption of more automated processes and encourage people to replace manual processes with more automated workflows.

To succeed, businesses must advance and remain competitive in their respective markets. But this progress does not have to come at the expense of the environment. Instead, companies can accomplish their objectives with green solutions and technologies like Adobe Acrobat and PDF that support environmental conservation.