

Orange County Planning and Development Services Department

County populates building permit-related forms on-the-fly and signs them digitally with Adobe Acrobat, Java libraries, and CIC Sign-It for Adobe Acrobat

PROFILE

- Planning department handling building permits for unincorporated areas in Orange County
- Employees: approximately 226
- Location: Santa Ana, California
- <http://pdsd.oc.ca.gov>

BENEFITS SUMMARY

- Orange County is streamlining its building-permit process by creating Adobe PDF forms on-the-fly and accepting digital signatures.
- Centrally stored Adobe PDF documents with attached digital signatures eliminate the need to distribute and file multiple copies of signed documents.
- Users can view signed forms with no software other than a browser and the freely available Adobe Acrobat Reader® software.
- Adobe PDF is a reliable format for archiving department forms because Adobe PDF files look exactly like the paper originals, regardless of the hardware or software used.
- School fee worksheets created as Adobe PDF files can be e-mailed to clients and the school districts, saving valuable time.
- Adobe PDF files cannot be altered after they are signed, making them a secure form of the department's documents.
- Adobe PDF files retain both the image of a digital signature and an encrypted version of the biometrics, which makes them self-contained legal documents.

New building consumes not only lumber, but also reams of paper used in the permit process. California's Orange County Planning and Development Services Department (PDS), for example, issues approximately 9,000 permits annually for unincorporated areas, and each permit potentially requires several related documents. To increase efficiency and client convenience, the PDS is developing an Automated Permitting and Planning System (APPS). The browser-based system is accessible from the department's intranet, and clients have access via the Internet.

A key strategy of the system is to reduce or eliminate paper and hard-copy filing systems. Therefore, the PDS is beginning to create and sign documents digitally, storing them in a central database. The technology behind the system is Adobe Acrobat software, Adobe Portable Document Format (PDF), Java, Java Server Pages, CIC Sign-It for Adobe Acrobat software, and Wacom signature tablets.

On-the-fly forms generation

As part of the APPS, the department developed a document management system that generates documents automatically and archives them on a central server, from which they can be retrieved electronically. The back end is a database containing information related to permits, such as owner, applicant, mechanical and electrical requirements, and associated fees.

Automatic document generation is accomplished with Adobe Acrobat, CIC, and Java technology. After an employee enters the information via the browser interface and clicks a button, the

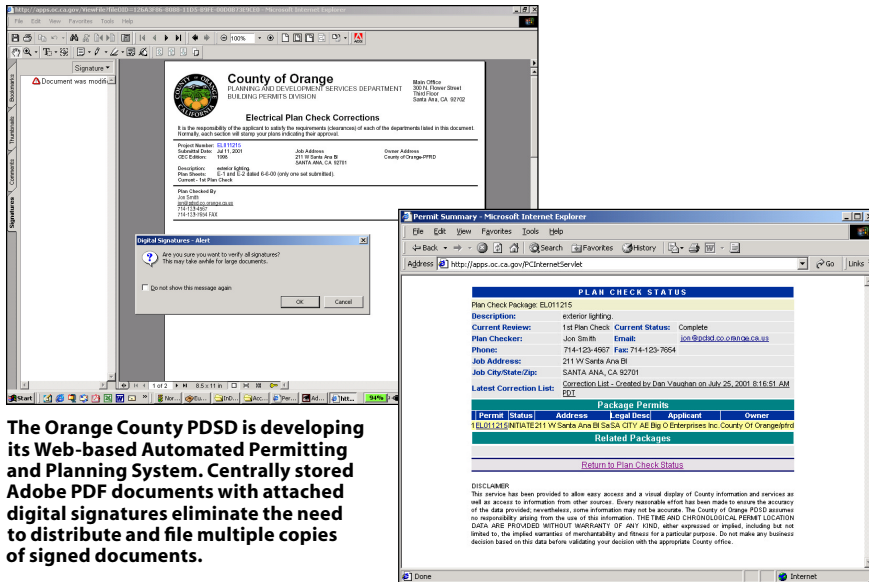
application automatically generates an Adobe PDF document on-the-fly, including a signature block at the bottom of the first page. "Adobe PDF documents look the same no matter what hardware or software is used, making them a reliable format for archiving and retrieving documents," says Mike Jones, manager of IS for the PDS.

E-signatures

The department chose to use a biometric form of digital signature, which involves an electronic signature pad that enables a user to sign a document digitally with a handwritten signature. "This preserves the ceremony of signing and helps bridge the gap between conventional ways and new technology," says Jones.

About 30 staff members are authorized to sign the Adobe PDF forms digitally using a Wacom tablet and digital pen attached to their PCs. CIC's Sign-It for Adobe Acrobat software authenticates the signature against a signature template stored on the server. Once the signature is authenticated, the Adobe PDF file is attached to the database record, where staff members and major clients can access it from the intranet or Internet. The signature is retained in the Adobe PDF file both as an image and as an encrypted record containing biometrics such as signature velocity and pressure.

"Adobe Acrobat is integral to our document management solution," says Jones. "We couldn't



The Orange County PDSD is developing its Web-based Automated Permitting and Planning System. Centrally stored Adobe PDF documents with attached digital signatures eliminate the need to distribute and file multiple copies of signed documents.

“Adobe Acrobat is integral to our document management solution. We couldn’t utilize electronic documents with digital signatures unless the documents retained the exact appearance of the originals.”

*Mike Jones
Manager of IS
Orange County Planning
and Development Services Department*

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Another key advantage of Adobe PDF for the application is security—specifically, that documents in Adobe PDF cannot be altered after they have been signed. “Adobe PDF provides document fidelity and security, while HTML doesn’t,” says Jones. “Also, Adobe Acrobat Reader software is ubiquitous so that anyone can read Adobe PDF files.”

Faster permit processing, better service

As a result of the APPS, the PDSD received strong support from the Building Industry Association, the Development Processing Review Committee, and several major developers. “These organizations recognize the potential of this technology to reduce paper and increase efficiencies,” says Jones. School fee worksheets, zoning plan checklists, and building plan checklists are documents currently being signed digitally.

Because information is stored in a consolidated database, building inspectors, who are in an office 12 miles south of the department’s main office, can quickly access and view documents generated moments earlier. In addition, the APPS allows building inspectors to automatically generate run

sheets of daily inspection requests in about half the time it used to take. “We have more than 60 inspectors who now leave for routes 30 minutes earlier each morning,” says Jones. “That amounts to substantial employee-hour savings every day.”

Another example of time saving is that the Adobe PDF file of the school fee worksheet can be e-mailed to clients and the school district. And the plan check correction list can be e-mailed directly to clients. “This helps us keep our commitment to certain turnaround time targets,” notes Jones. Clients also have the ability to retrieve the plan check correction list over the Web and obtain plan check status.

Less paper for the planning department

The department is also extending its use of Adobe PDF and e-signatures to other applications. For example, Jones routinely digitally signs contractors’ time sheets, which he requests that contractors submit in Adobe PDF. The technology has also been used in the department to sign personnel reviews. Eventually, the county will enable clients to initiate the permit process over the Web, saving trips to the department’s Civic Center office.

“Our goal is to increase automation and reduce paper. Certain documents require signatures,” says Jones. “With Adobe PDF, we found a format that looks like paper documents, cannot be altered, and supports capability for biometric signature authentication.”

TOOLBOX

- Adobe Acrobat
- Adobe Acrobat Reader
- CIC Sign-It for Adobe Acrobat
- IBM® WebSphere application server
- Microsoft® Windows® 2000
- PDFlib from PDFlib GmbH
- Sun JavaServer Pages technology
- Compaq ProLiant server
- Dell PCs
- Wacom digital tablets

