

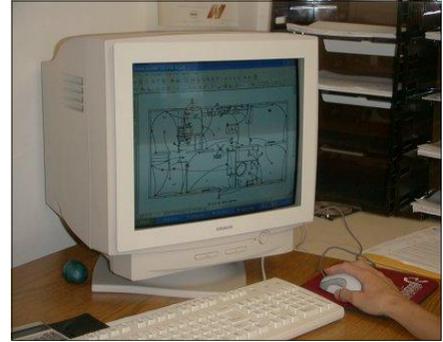


## Electronic Plan Review for Modular Construction

**Plan Review** is the process of examining a building's design to assure compliance with applicable codes, and approving the plan for construction. That's a simple definition for a complex procedure. It needs to be streamlined and made more efficient to meet the needs of today's world. The answer is **electronic plan review**.

The online (electronic) plan review process is still new. Currently different states have different requirements, and many states are looking for assistance. NOW is the time to get together and develop standards and procedures that provide the security and convenience the industry and state agencies require.

PFS Corporation recommends the "common sense" approach of using readily available "off the shelf" non-proprietary industry standard products and the Internet, i.e., Adobe Acrobat format files and E-mail. Acrobat files are easy to create and can be read by any computer platform, and Acrobat Reader can be downloaded from the Internet free.



*A home plan is reviewed electronically by PFS in Madison, WI.*

The security measures that have been enhanced with Acrobat 6.0 give the electronic documents as much security and authentication as the traditional "wet sealed" or embossed documents of the past.

The **benefits** of using this common sense approach are numerous:

- (1) No proprietary software or hardware is required — no license fees are necessary. Adobe PDF is a reliable format for electronic document exchange that preserves document integrity. It is a standard adopted by governments and enterprises worldwide.
- (2) This method is budget-friendly since the hardware needed is similar to what is already on most office desktops. The full version of Adobe Acrobat 6.0 is reasonably priced, and the abbreviated version, Acrobat Reader, is free.
- (3) The manufacturer enjoys speed and versatility. Documents are sent quickly and efficiently through e-mail systems, avoiding the time constraint of mail or delivery systems. **Storage** of completed documents can be maintained online in a searchable library, or stored on individual disk or CD storage. Document libraries can be maintained in different locations — at the discretion of the manufacturer, third party agency and regulatory agency with each maintaining their own individual libraries if they so choose.
- (4) This method is **secure**. Digital signatures enable engineers and plan reviewers to create certified documents that authenticate their identity and validate the integrity of the content throughout the plan review process. As stated above, it is as secure as the "wet sealed" and "embossed" approval process of the past.

## The method from concept to final approval —

The manufacturer creates an original design or modifies an existing design, and the drawing is passed electronically to the engineer or a plan review agency.

The **engineer** reviews the design and affixes his/her engineering seal to the drawing thus beginning the security procedure. Using Adobe Acrobat 6.0, the engineer creates a digital signature box for each signatory agency that must approve the document. *From this point forward changes to the document cannot be made other than those explicitly allowed by the creator of the document, e.g., filling in form fields for comments and/or affixing another digital signature.* The documents are then e-mailed to the third party plan review agency.



PFS DAPIA coordinator, Shawn Tibbits, adds the PFS stamp to an approved plan.

The **third party agent** reviews the digitally sealed document for code compliance. If the design meets applicable codes, the plan reviewer affixes the agency's approval stamp and digital signature in the signature box provided, and e-mails the document to the appropriate regulatory agency.

The **regulatory agency** follows its own review requirements. With confidence that the documents have not been altered since the original engineering seal was affixed, the regulator can now add the regulatory agency's own approval stamp in the signature box, or notify the manufacturer of approval.

This efficient method is currently being provided successfully to the manufactured housing industry by PFS. **Several modular producers are using electronic plan review as well, giving them the market advantage of achieving speedier and more efficient plan approvals.**

For more information you may contact Dennis Newman at 608.224.5548 or e-mail [dnewman@pfscorporation.com](mailto:dnewman@pfscorporation.com) and request a copy of white paper, **Securing the Engineering Workflow for Third Party Review.**

By Kathleen Blair  
Vice President of Administration

**PFS Corporation is a third party evaluation and certification agency that consults with the wood-related construction industry in achieving greater quality and safety. PFS evaluates and certifies a broad range of products and structures, including all types of industrialized building systems, engineered wood products, and wood components.**

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