# How to protect documents with SmartShelter® | PDF





# **Protecting PDF Documents with SmartShelter®**

With so much emphasis these days on DRM (digital rights management) and software antipiracy measures, it's easy to lose track of something relatively mundane in comparison: basic document protection. Most businesses have lots of reports, analyses, manuals, and similar documents that should not be left completely unprotected.

Although there are a myriad of choices for document creation, possibly 95% of all (text) documents (excluding email) are either a MS Word file or a PDF (Microsoft has an XML-based PDF competitor, but so far it hasn't seemed to catch on).

Both Word and Acrobat come with some document protection, but it's not a terribly robust system to protect truly sensitive documents. Before we get into the details, why would anyone need document protection anyway?

Anytime you've got a document that could do harm if it fell into the wrong hands, you need strong document protection. Imagine you're a movie mogul working on the sequel to Avatar. The script is top secret! How to make sure the details aren't leaked? Document protection. What about product specifications for the iPhone 5? You know how the rumor mills churn when any details on hot consumer products are leaked in advance. Keeping those plans, specifications, and vendor contracts secret using document protection could save companies like Apple a lot of heartache.

Although Adobe provides a method for protecting PDF documents with passwords, there are times when that is inadequate. CodeMeter SmartShelter | PDF lets you protect PDF documents by storing a strong password inside a CmDongle.

The advantages are:

- Weak passwords are relatively easy to crack; SmartShelter uses very strong passwords that are randomly generated
- SmartShelter uses Acrobat Reader, rather than a custom file viewer
- The document, once protected with Smart-Shelter, can be freely distributed. Only those individuals with an appropriate license stored in a CmContainer will be able to open and read the file.

With SmartShelter | PDF you have the choice of using a strong password, or storing your protection in a CmContainer (CmStick, CmCard, CmActLicense) or with WibuKey. Use of a dongle (CmDongle or WibuBox) gives you maximum protection against unauthorized access of your protected PDFs.

The steps to protecting a PDF document with SmartShelter are quite simple. Users need only to install the SmartShelter add-in for Adobe Acrobat (available free from www.wibusystemsusa.com).

#### Installing SmartShelter

There are two versions of SmartShelter | PDF: one for developers and one for users. If you want to create protected PDFs, you will need the Smart-Shelter developer software, plus Adobe Acrobat (or Acrobat Professional). Anyone who wants to open a protected PDF needs the SmartShelter user software. (Both of these (developer and user) are add-ins to Adobe Acrobat, Acrobat Pro, or Reader, respectively.) All a user needs is Acrobat Reader (freely downloadable) and the installed add-in from Wibu-Systems.

If you are a developer, you will first need to register with Wibu-Systems. Follow the "login" link



at the top of the page at www.wibu.com to reach and complete the registration form. After verification, you will receive your credentials to log in and download developer software. Users require no prior registration to download

and install SmartShelter | PDF for Acrobat Reader. You can, as a



developer, freely copy and distribute the Acrobat Reader add-in to your users as well so they don't have to download it themselves.

SmartShelter | PDF installs in c:\Program Files (x86)\SmartShelter PDF\ whether you are a user or developer. You can find the documentation there, along with a command line version (for automating file protection tasks) and a necessary DLL.

#### Creating a Protected PDF

The first step is to protect your document. You do this inside Acrobat Professional. Note: you can use Adobe Reader (free download from www. adobe.com) to open and read a PDF protected with SmartShelter, but you must use Adobe Acrobat (not free) to protect it.

First, make sure you have a valid FSB plugged into your computer. (If you don't have an FSB, you can get one free here.) For this tutorial, we are using the Evaluation System FSB with Firm Code 10. From the Acrobat File menu, select "Save Encrypted Document."

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This opens the SmartShelter user interface:

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SmartShelter | PDF provides you with a subset of the standard CodeMeter licensing options. You have the following features to work with:

- Firm Code
- Product Code
- Licensing system (CodeMeter or WibuKey)
- Feature Codes
- Activation date (document can't be read be-

fore this date)

- Unit counter (for either print or open)
- Network access
- Expiration date or usage period (document can't be read after this date or period).

For now, set the Firm Code to 10 and the Product Code to 13. Leave the other options as they are. Click on the "Set" button to see some additional options:

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Encryption settin	ngs Plaintext passwords I	Miscellaneous						
With this Adobe Acrobat plug-in you can encrypt your PDF documents with the CmStick/WibuBox. For this, enter your Firm Code and your desired Product Code. The document will be protected with a password generated with these parameters.								
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Product Code	0	Algorithm	4 💌					
Feature Map	0	Edit more systems						
Check activation date Unit Counter check No check Use network access Check expiration date / usage period Permissions / Compatibility Restrict editing and printing of the document. Set backward compatibility to older Set Adobe Acrobat versions.								
			OK Cancel					

Here you can see additional choices for more protection options, such as disabling printing and copying. (Note: the "Disable Screen Shot" in combination with the "Process check" option will prevent known screen capture programs from working on this protected PDF. See the *SmartShelter* | *PDF* 

#### Developer's Guide for more information.)

Click on the tab that says "Plaintext Passwords."

WIBU-SYSTEMS SmartShelter/PDF	x
SmartShelter   PDF	
Encryption settings Plaintext passwords Miscellaneous	
This is the password, which was generated with the encryption parameters above for It is not recommended to publish it. However, it is possible to open the document witho CmStick/WibuBox if a user has this password.	this document. ut a
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Owner password	
3518424D3808CC05798C6A04271409E9	Hide
OK	Cancel

Normally you would require your customer to have a CmContainer (CmDongle or CmActLicense) or WibuKey—with the correct license—to open and read a SmartShelter-protected PDF. But you can also create a strong password which can be used to open the file in lieu of a dongle. If you want a fallback method to open the file without a dongle, use this dialog box to create a plaintext password and save that password in a secure location. Then if for some reason you need to grant access to someone who does not have a dongle, you can share the password with them. Note: the password cannot be retrieved from the protected PDF, nor can it be recreated in any way once the PDF has been protected. If you think you will ever need password access, this is your only chance to copy it in plaintext.

There are two passwords: Owner and User. Owner allows you to change some of the settings on an already-protected PDF; User allows only for accessing a protected PDF.

Once you select all your options, you are ready to protect your PDF. Click OK and select a name and location to store your protected PDF (note that SmartShelter | PDF does not alter your original file; it merely creates a protected copy).

That's it! Your PDF is now protected against unauthorized reading or printing.

### **Opening a Protected PDF**

You can freely send your newly protected PDF out to your users, but they will be unable to open it unless the following things happen first:

- They must install the SmartShelter | PDF User add-in to Adobe Reader or Acrobat on the machine they will use to view the PDF.
- 2. They must have one of the following (depending on how you protected the PDF):
  - CmStick or CmCard with correct license
  - CmActLicense with the correct parameters
  - WibuKey with correct license.

CodeMeter's architecture is identical whether you choose to store your licenses in CmSticks, CmCards, or CmActLicenses. The protection of the PDF is not different depending on which CmContainer your customer gets. However, if you want your customer to use a WibuBox to open the PDF, you will have to have that option turned on in the protection dialog box. To use both CmContainer

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*Getting Started Guide.* If you need to create a license for WibuKey, please contact Technical Support at Wibu-Systems USA. You can get a copy of the *Getting Started Guide* with your free Evaluation System.

#### **Final Thoughts**

More information about SmartShelter | PDF is available in the *SmartShelter* | *PDF Developer's Guide*, including information on how to set up Acrobat to do batch processing for protecting many files at once. As always, if you have questions not answered by the documentation please contact Technical Support.

## About Wibu-Systems USA

Wibu-Systems USA is the sole authorized distributor of CodeMeter and WibuKey products in North



America. CodeMeter is the only software protection system to survive multiple public hacker's contests held around the world, including in China and Russia. Wibu-Systems USA provides sales, shipping, and technical support from its offices outside Seattle, WA. For more information on CodeMeter, Wibu-Systems, or the world's most secure software licensing solutions, please visit www.wibusystemsusa.com.

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