



ComSignTrust

API's

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Terms and Abbreviations

Abbreviation	Description
Certificate	A certificate authority, such as Comsign, that issues digital certificates, trusted by the sender and the receiver of the document.
CTD	ComSignTrust Desktop
Smart Card	Any pocket-sized card or active field with embedded integrated circuits; can provide identification, authentication, data storage and application processing.
SSL	Secure Sockets Layer
WCF	Windows Communication Foundation

Introduction

A digital signature is a technology for signing electronic documents. Digital signatures are equivalent to traditional handwritten signatures in many respects; therefore, for the receiver, the digital signature serves as an authentication of the sender as well as an indicator that the received file content has not been modified since it was signed.

ComSignTrust Desktop supports digital signatures of various types of file formats. However, not all the digital readers support and display this information when the document is opened. For example, Adobe Acrobat Reader shows the digital signature details and even checks its validity against the CRLs while other PDF readers such as “*Evince*” or “*Chrome PDF viewer*” do not even notice the presence of a digital signature in the document.

ComSignTrust Desktop enables to generate a digital signature and place it into an existing/new file, an external envelop or as an additional element in an XML document.

When a PDF file is signed, ComSignTrust Desktop creates a placeholder for the digital signature, then the whole structure is signed and the PKCS#7 containing the RSA raw signature is placed into this placeholder.

Once the file is signed, it is possible to add content to the signed file, however, a new PDF version must be produced and may be signed again, and a new version is automatically generated. It is always important to verify each version separately.

Acrobat reader displays a “V” if the signature is successfully validated.

A similar approach is applied to the new OpenXML document formats released by Microsoft and promoted as of Office 2007. Files with extensions such as .xlsx or .docx can be signed several times and the signatures can be displayed when opened with Microsoft Excel or Microsoft Word.

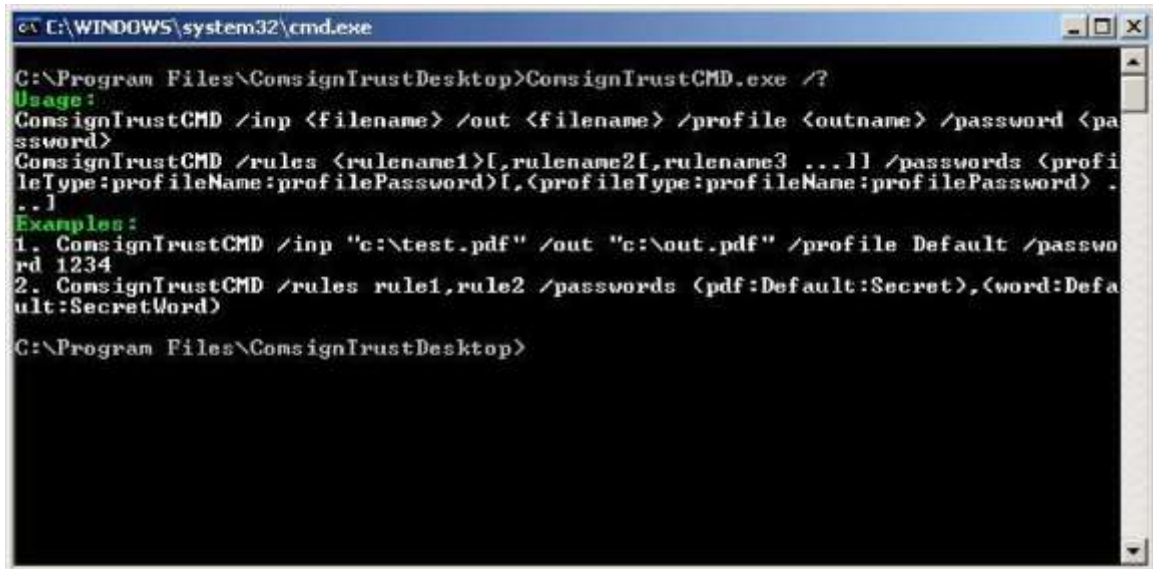
Interfaces

Several interfaces are available for a batch process:

- Signing using a command line
- Signing using .NET dll
- Sign using WCF (web services)
- Sign using a shell extension
- Sign using a COM/ActiveX

Signing using a Command Line

ComSignTrust Desktop allows signing by using a command line.



```

C:\WINDOWS\system32\cmd.exe
C:\Program Files\ComSignTrustDesktop>ComSignTrustCMD.exe /?
Usage:
ComSignTrustCMD /inp <filename> /out <filename> /profile <outname> /password <password>
ComSignTrustCMD /rules <rulename1>[,<rulename2>[,<rulename3> ...]] /passwords <profileType:profileName:profilePassword>[,<profileType:profileName:profilePassword> ...]
Examples:
1. ComSignTrustCMD /inp "c:\test.pdf" /out "c:\out.pdf" /profile Default /password 1234
2. ComSignTrustCMD /rules rule1,rule2 /passwords (pdf:Default:Secret),(word:Default:SecretWord)
C:\Program Files\ComSignTrustDesktop>

```

Figure 28. Signing in a command line Following

is an example for a command line:

```
COMSIGNTRUST DESKTOPCMD.EXE /INP C:\TEST.PDF /OUT C:\TEST_OUT.PDF /PROFILE DEFAULT /PASSWORD 1234
```

Profile names, passwords and switches are all case sensitive.

Signing using a .NET dll

Reference the ComSignTrustLib.dll from GAC or from **C:\PROGRAM FILES\COMSIGNTRUST DESKTOP\API\LIB**.

In the above folder there is a sample code file in c# which demonstrates the process of a PDF signing.

Sign WCF (web services) / Remote Client

ComSignTrust Desktop exposes a WCF based WSDL interface and provides a sample remote client that connects the web service and allows a remote signing from a desktop application client.

The client is placed under:

C:\PROGRAM FILES\COMSIGNTRUST DESKTOP\DESKTOPCLIENT

There is no need to develop a web service client of your own; it is possible to take advantage of the client DLL that supports PDF signing and is placed in

C:\PROGRAM FILES\COMSIGNTRUST DESKTOP\API\WEBSERVICE.

This folder consists of a sample for using this DLL in C#.

The web service interface is also available if ComSignTrust Desktop is installed as a windows service.

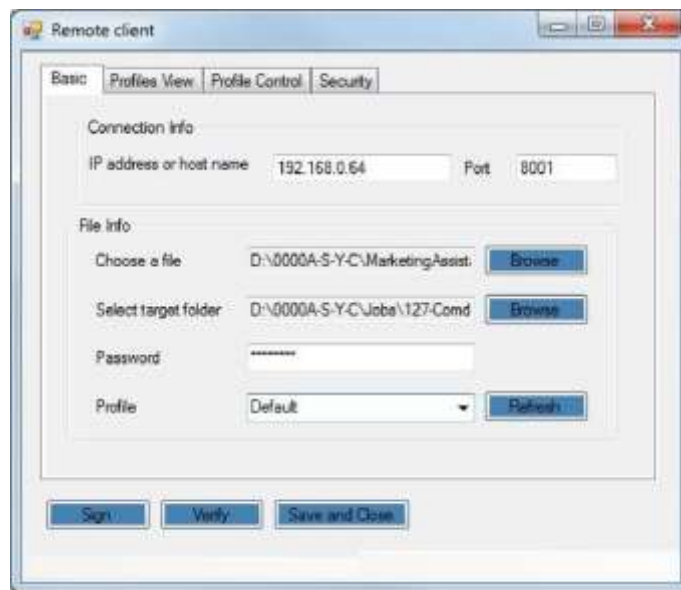


Figure 29. Remote Client Screen

Sign using a Shell Extension

ComSignTrust Desktop allows signing any PDF document directly on the desktop.

To sign a PDF placed on the desktop 1.

Place a PDF file on the desktop.

2. Right-click the icon and click *Sign*.



Figure 30. Sign PDF on Desktop

3. The following prompt is displayed:

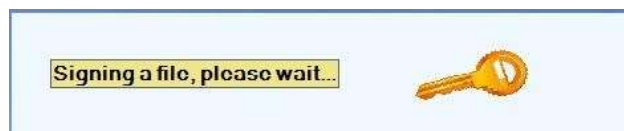


Figure 31. Sign on PDF – Prompt

4. Notice that an additional PDF file is placed on the desktop; its filename suffix is *.signed*.



Figure 32. Shell Extension

Sign using a COM/ActiveX

ComSignTrust Desktop allows signing by using ComSignTrust Lib ActiveX.

Samples are located in

C:\PROGRAM FILES\COMSIGNTRUSTDESKTOP\API\COM.

No need to run a web service
