Validating Digital Signatures in Adobe

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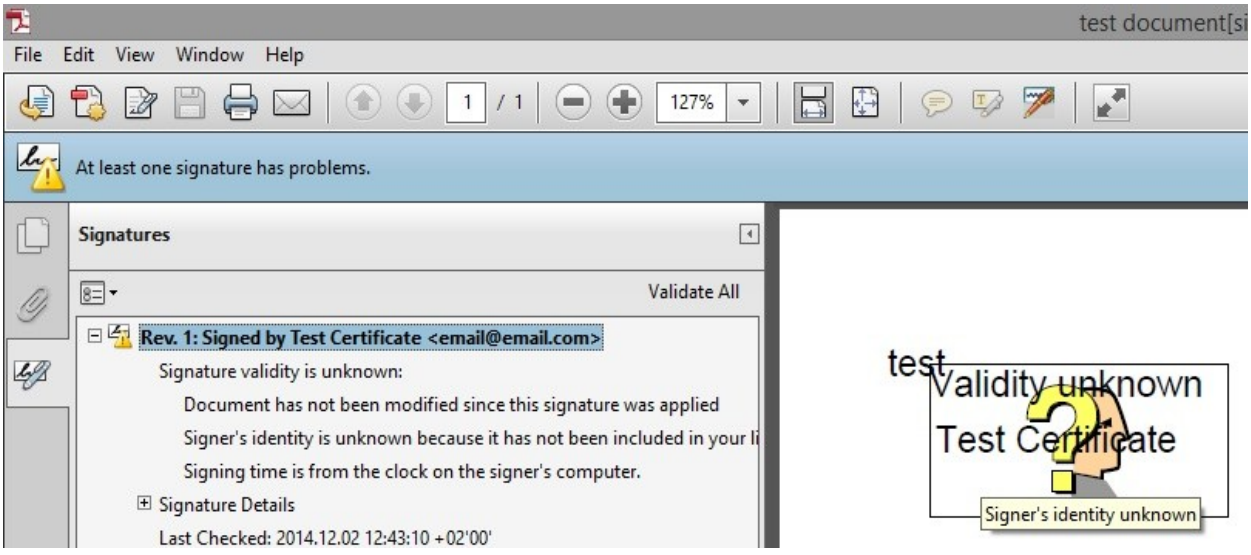
Usually, the digital certificates are issued by a Root CA (Certification Authority).

If the Root CA that issued the signing certificate is not included in Adobe Trusted Identities, the digital signature is considered "not trusted" (but NOT invalid) when the document is opened in Adobe Reader (see example below).

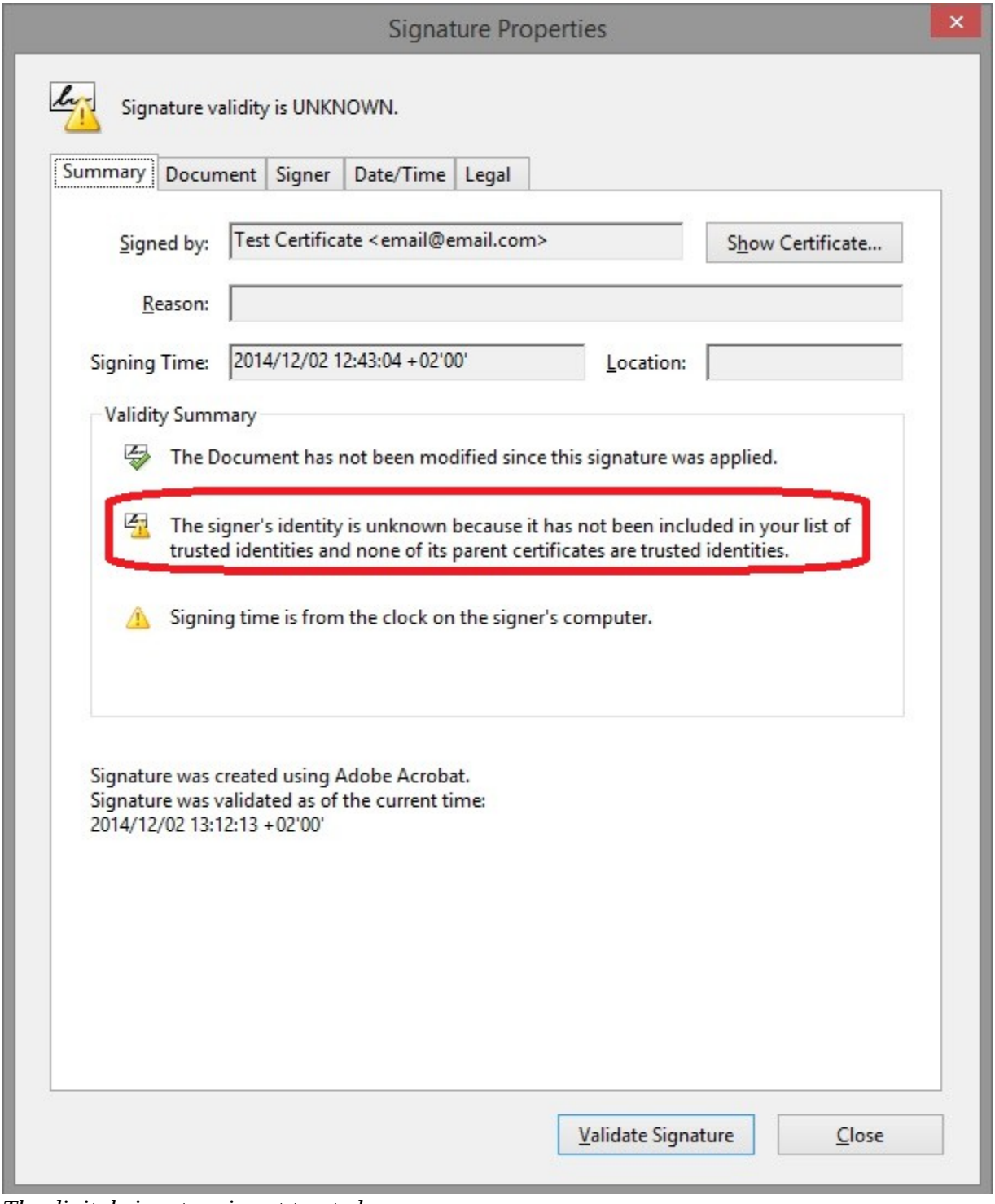
This behavior has nothing to do with the signing engine (e.g. PDF Signer, Adobe Reader) but with the Adobe certificate validation procedure.

The user can validate the signature if the Root CA is already installed on Microsoft Certificate Store (see the section *Validate the Signature using Windows Integration*).

As an alternative, the recipient must manually add the Root Certificate of the signing certificate on Adobe Trusted Identities because only a few Root CA's are considered trusted by default by the Adobe certificate validation engine (See this article: http://www.adobe.com/security/partners_cds.html).



The digital signature in not trusted

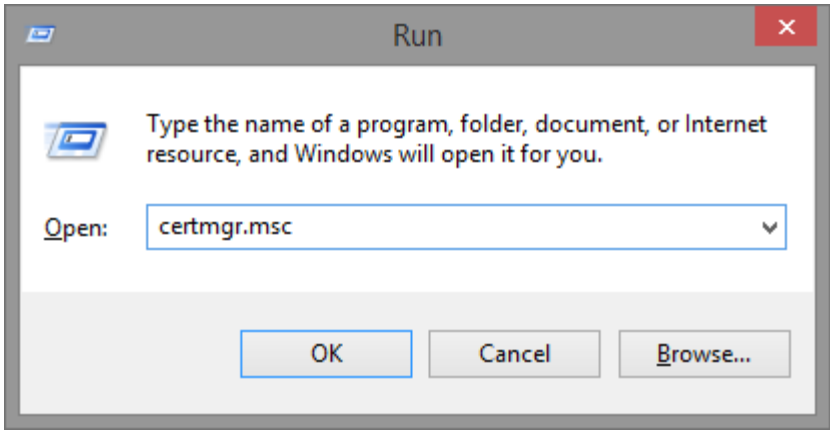


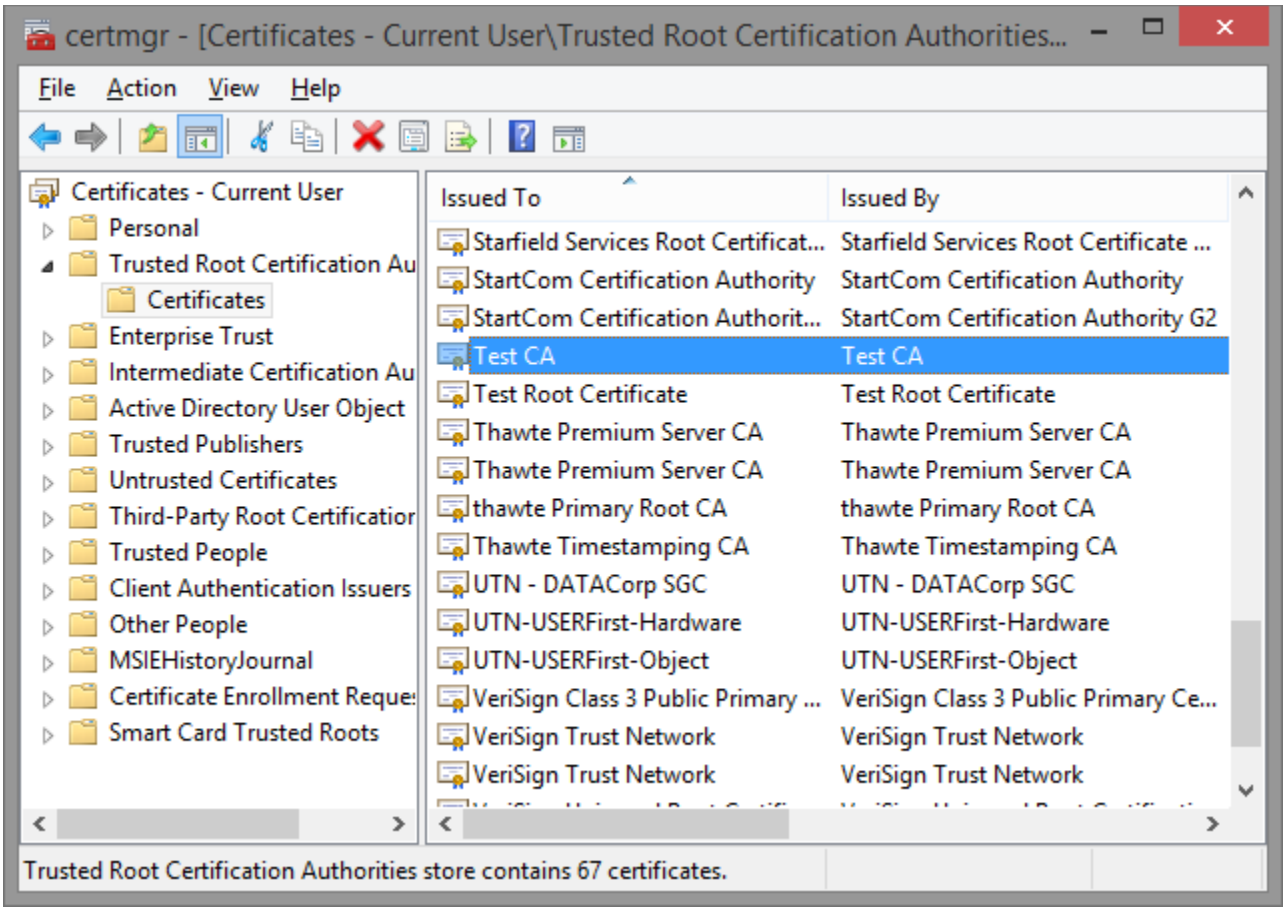
The digital signature is not trusted

1. Validate the Signature using Windows Integration

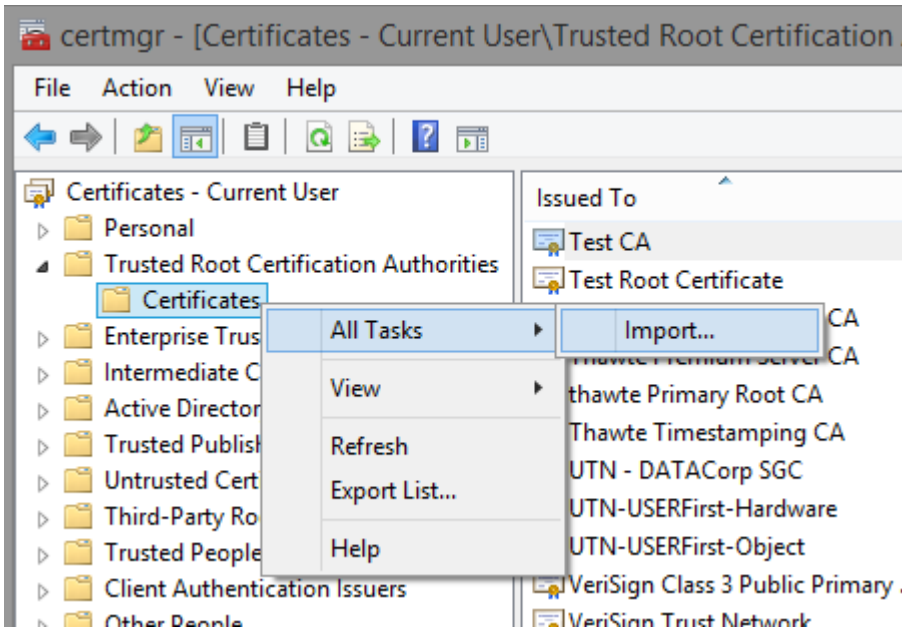
You can use this method if your digital certificate is issued by a Root CA already installed on Microsoft Certificate Store. Microsoft and Adobe use different Certificate Stores and different certificate validation procedures.

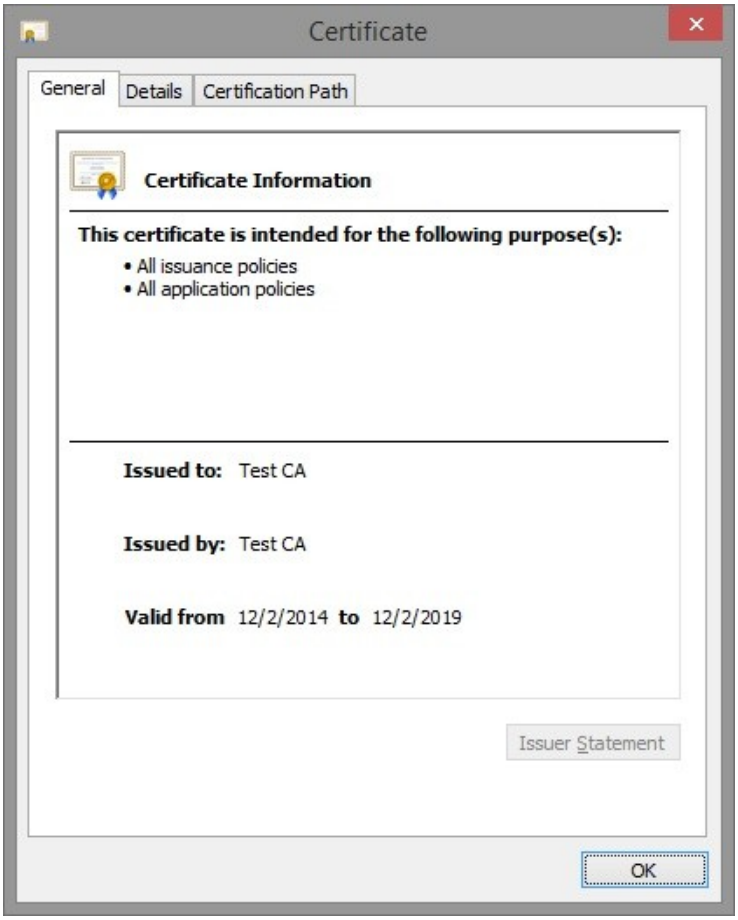
To see if your Root CA is installed on Microsoft Certificate Store, go to Start – Run – certmgr.msc



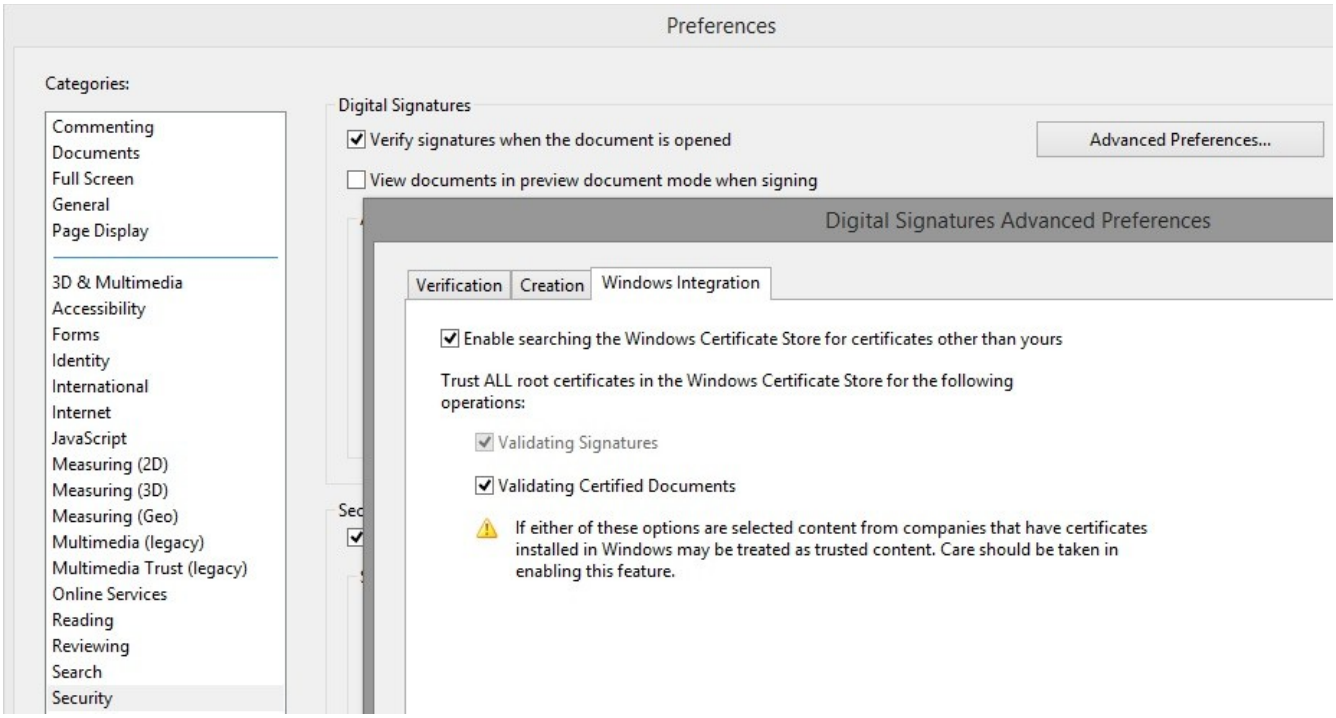


You can also import your Root Certificate here.

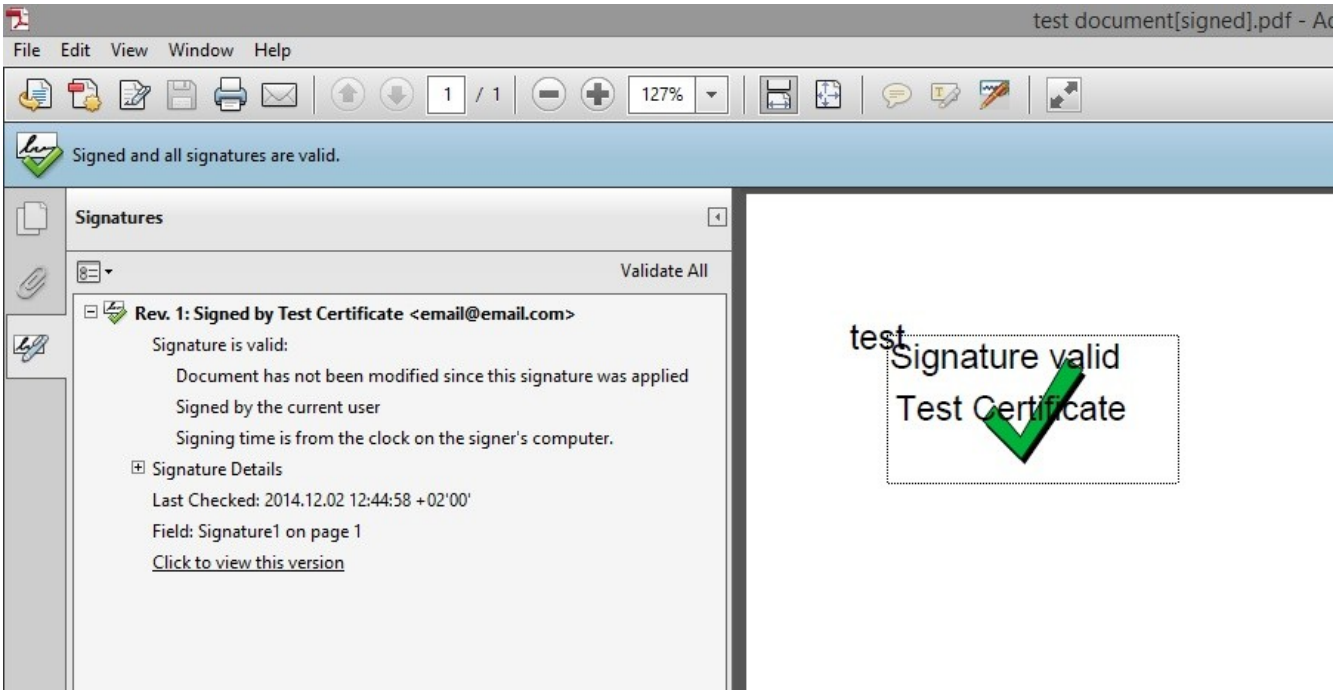




After you check that your Roor Certificate is installed, in Adobe Reader go to *Edit menu – Preferences option – Security tab – click on Advanced Preferences button – Windows Integration tab* and check all checkboxes.



When the document is re-opened, the digital signature is considered valid.

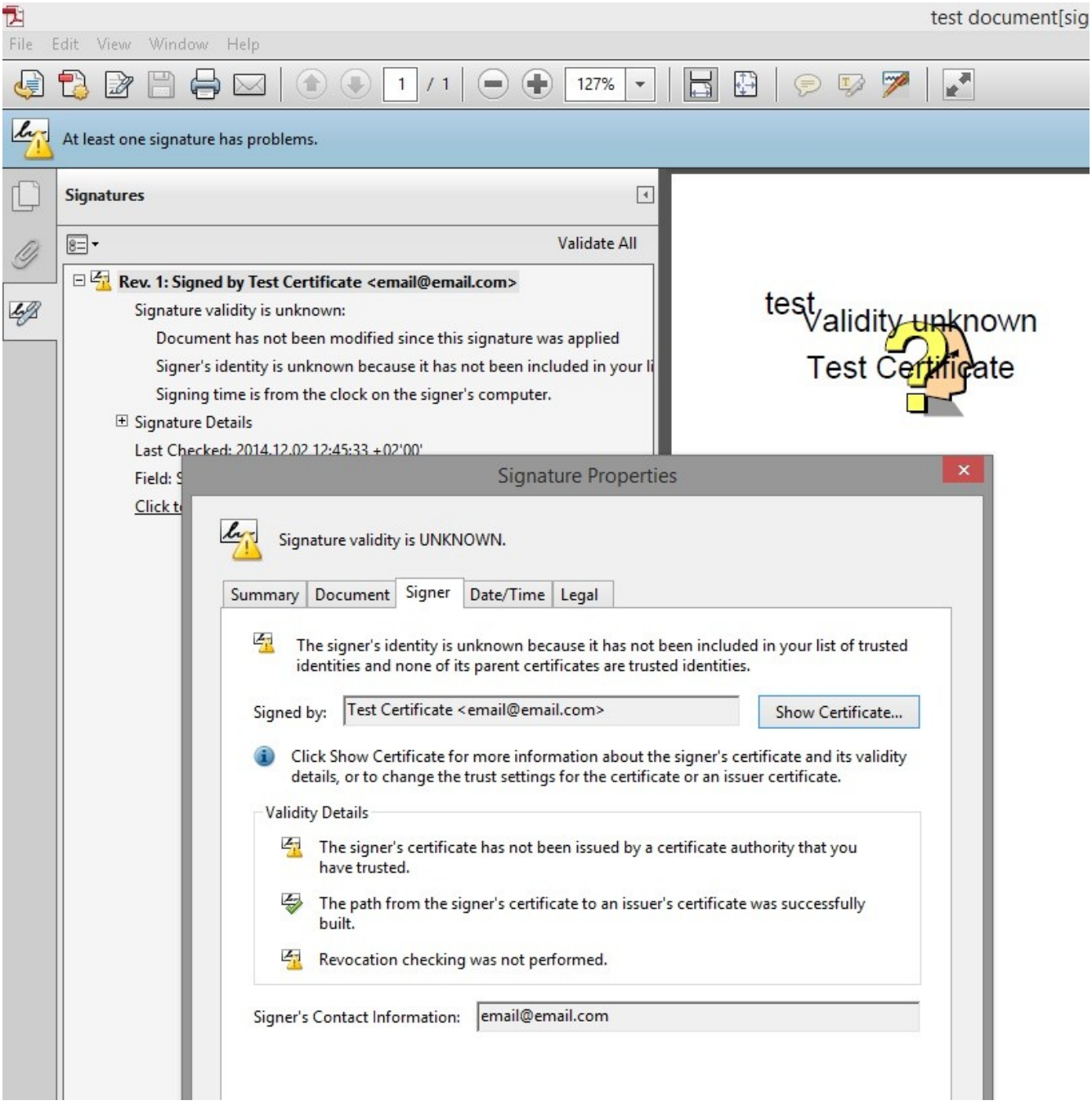


Valid Signature

2. Add the Root Certificate on Adobe Trusted Identities

Some of the Root CA's are included by default in Windows Certificate Store (Trusted Root Certification Authorities) and only a few are included in Adobe Trusted Identities.

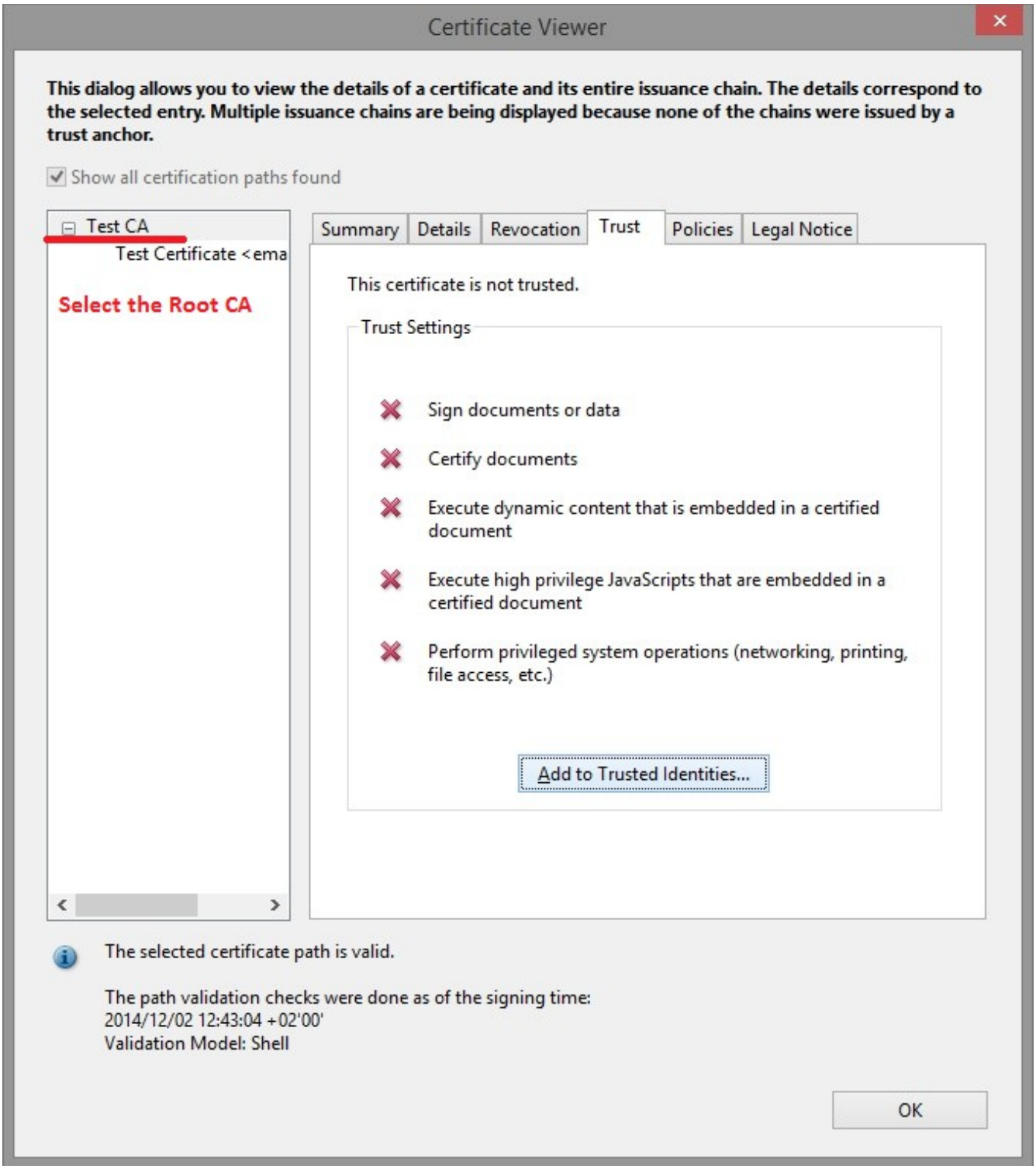
Because the Root CA of the signing certificate is not included on Adobe Trusted Identities, the signature is considered “not trusted” (but NOT invalid).



Signature is not trusted

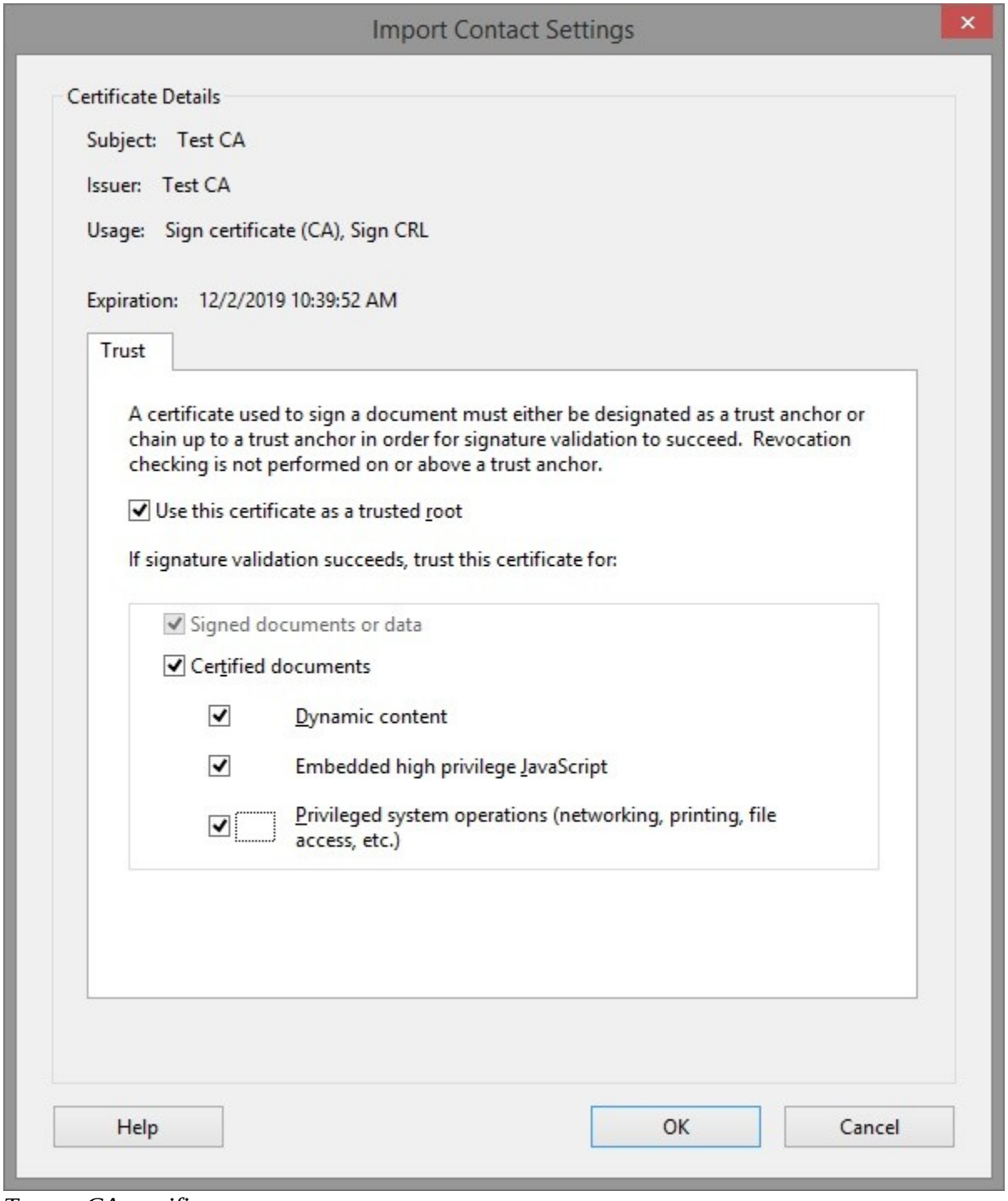
To manually add the Root Certificate on the Adobe Trusted Identities, open the signature properties and click *Show Certificate and select Trust tab*.

Be sure that you have selected the topmost Root Certificate.



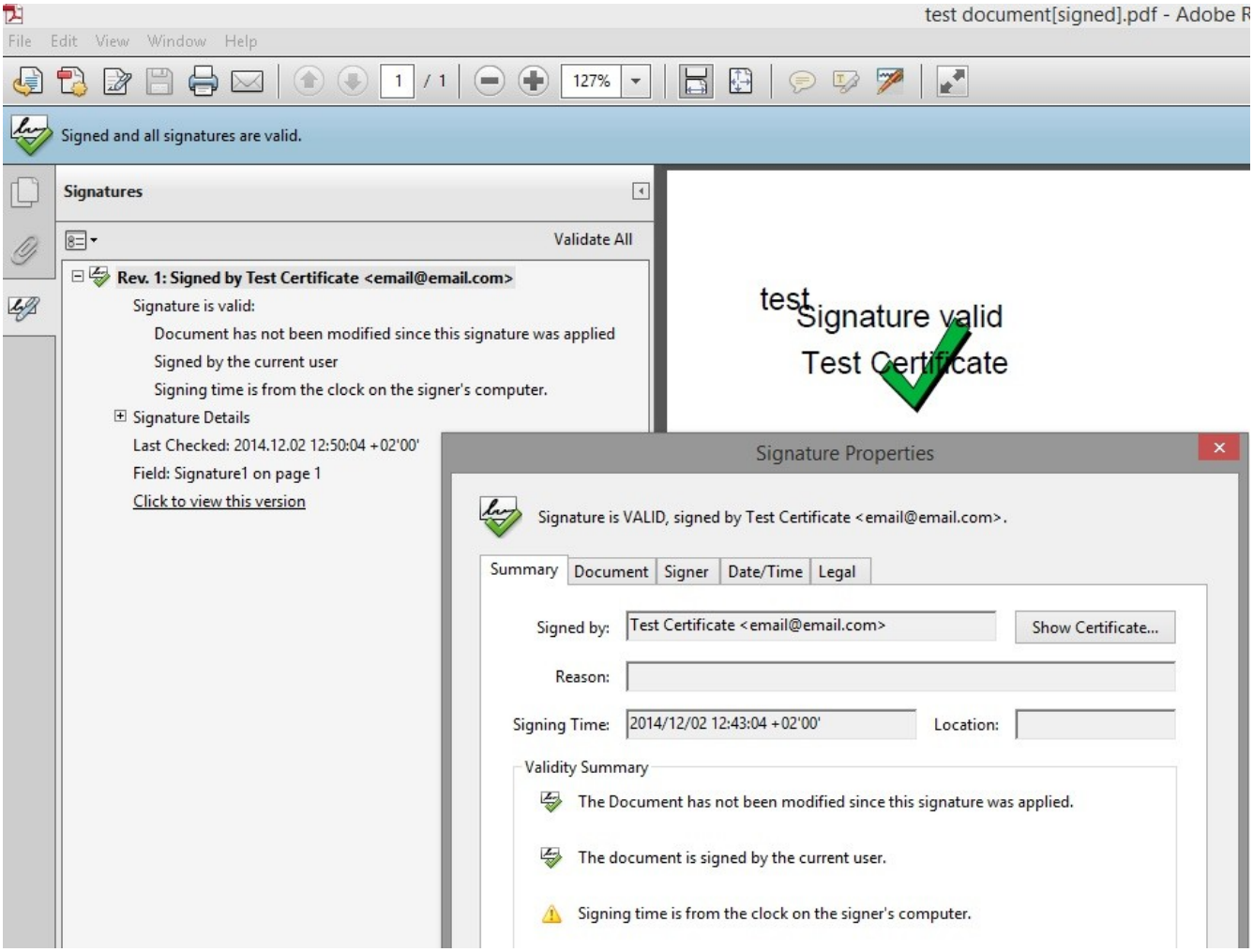
Trust a CA certificate

Press *Add to Trusted Identities tab* and be sure you have checked all checkboxes, as below.



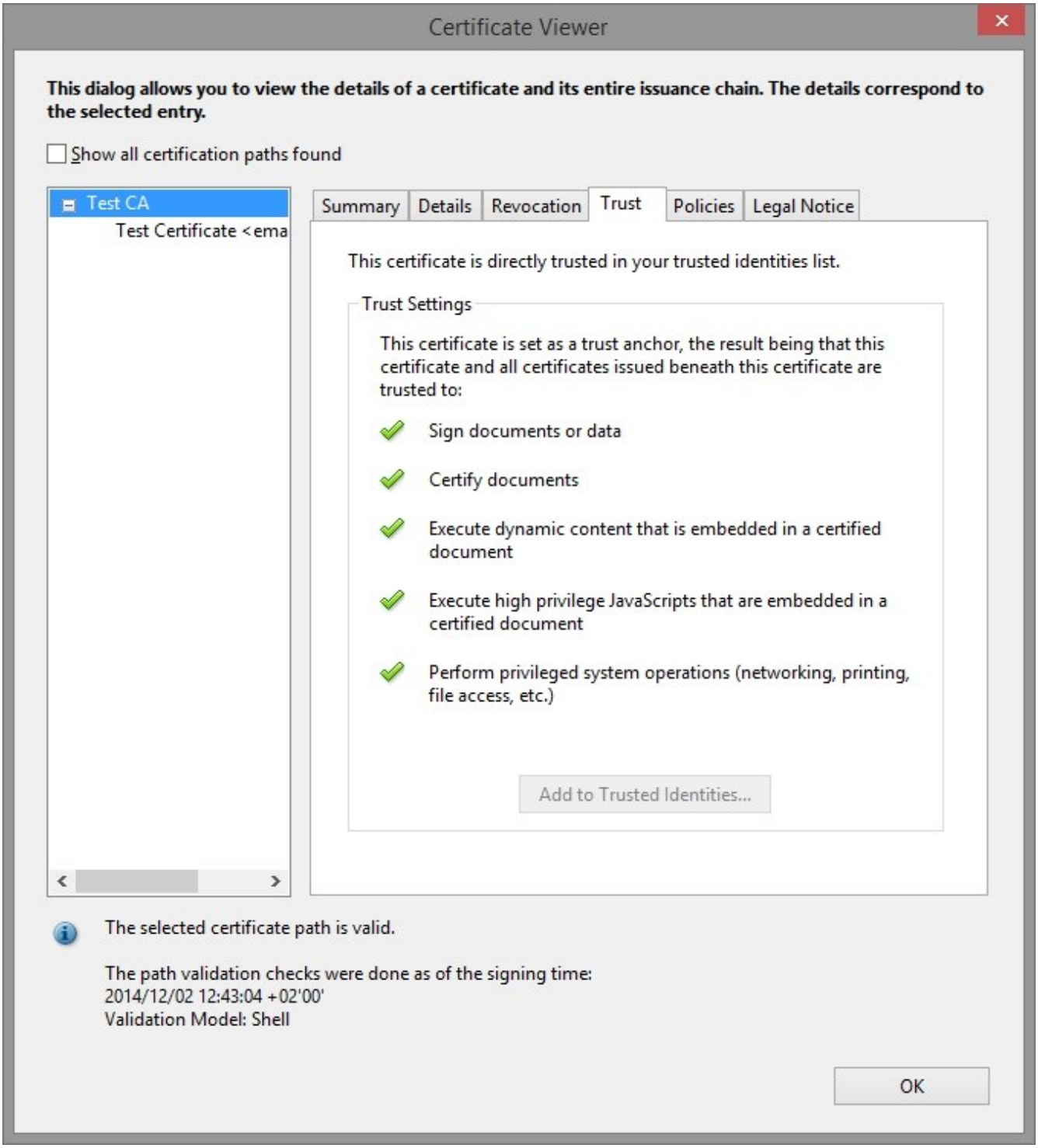
Trust a CA certificate

After all dialog boxes are closed and the document is re-opened, the signature is considered Valid.



Valid digital signature

The Root Certificate is now Trusted and all signatures generated with this Root Certificate will be also Trusted.

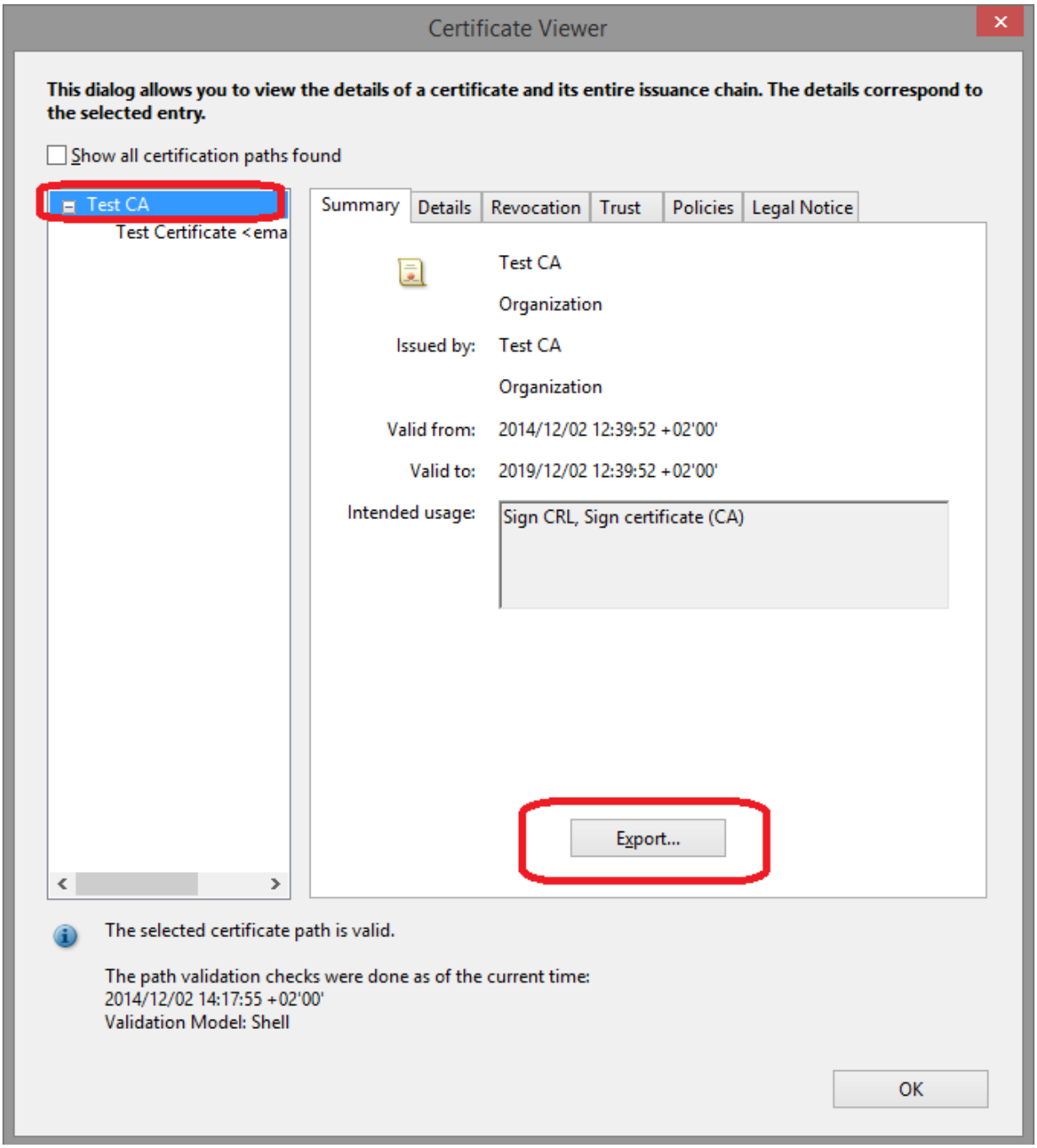


Trusted Root Certificate

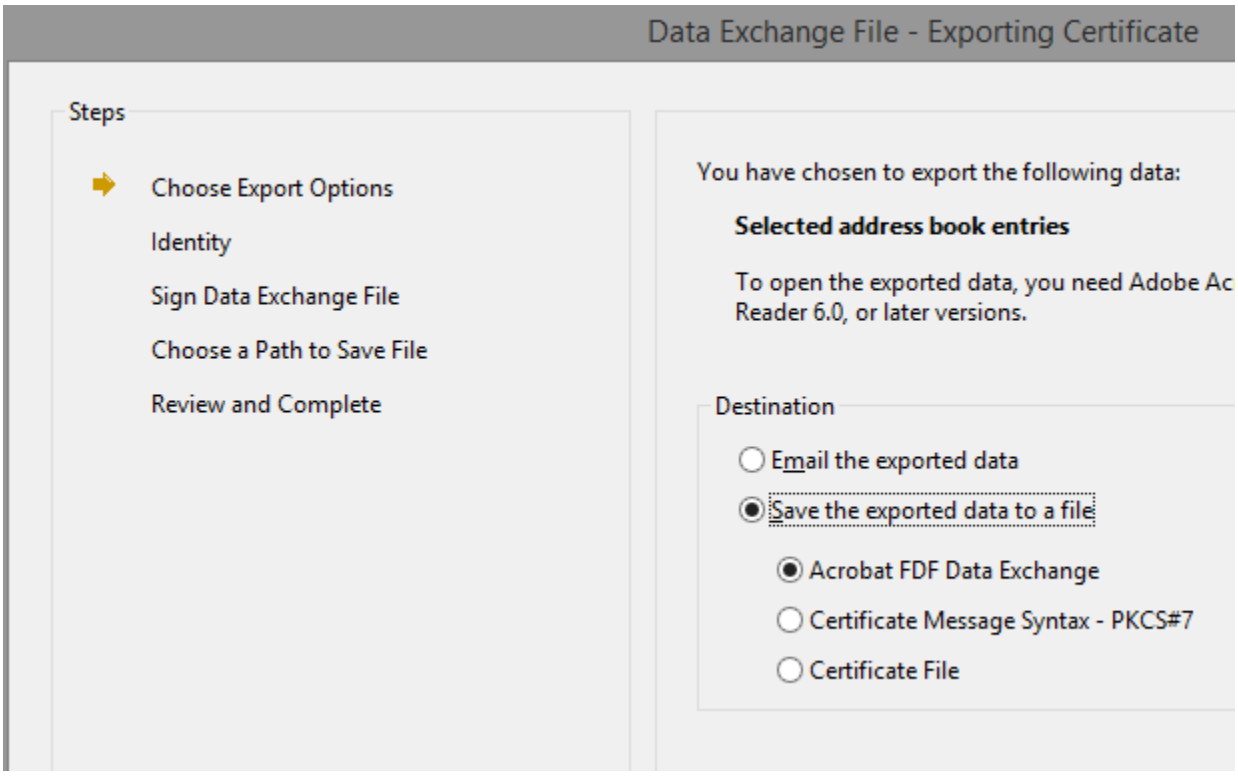
3. Export/Import the FDF (Acrobat Forms Data Format)

In order to avoid to manually add the Root Certificate on every client machine, the Root Certificate can be exported as Adobe FDF file. Once the file is exported, it can be installed on every machine where the digital signatures must be verifed.

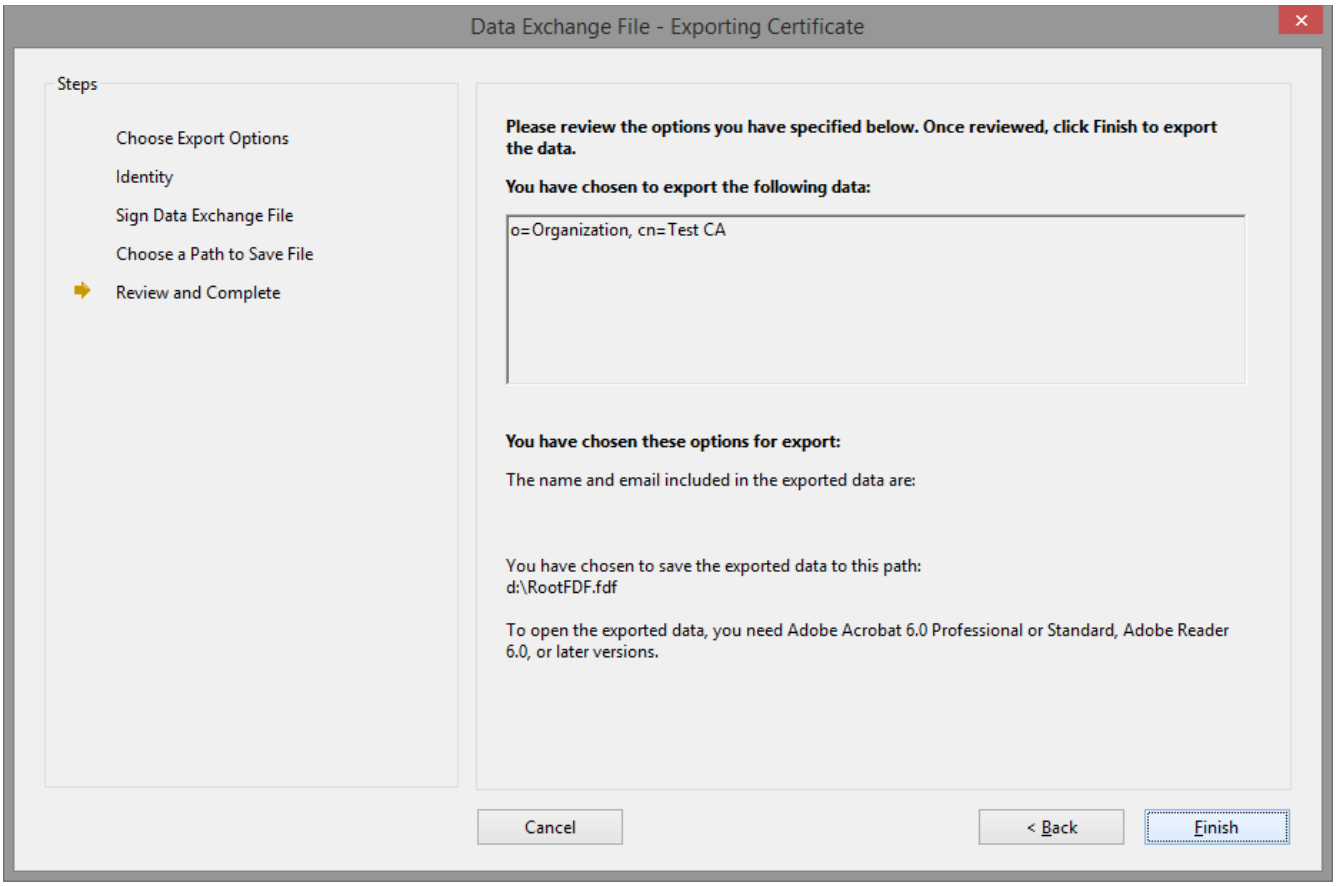
The FDF file can be exported from the D*igital signature properties – Certificate section*. Be sure the Root Certificate is selected and not the signing certificate.



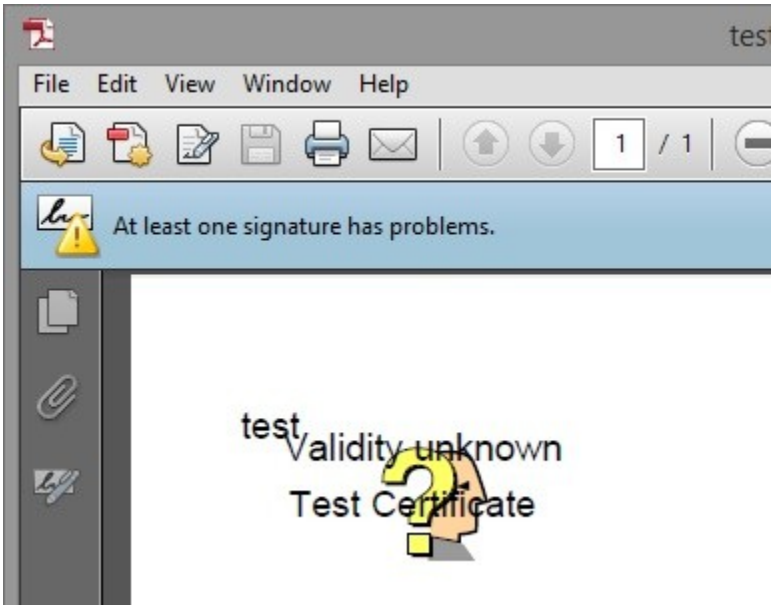
On the next window select Acrobat FDF data Exchange, as below:



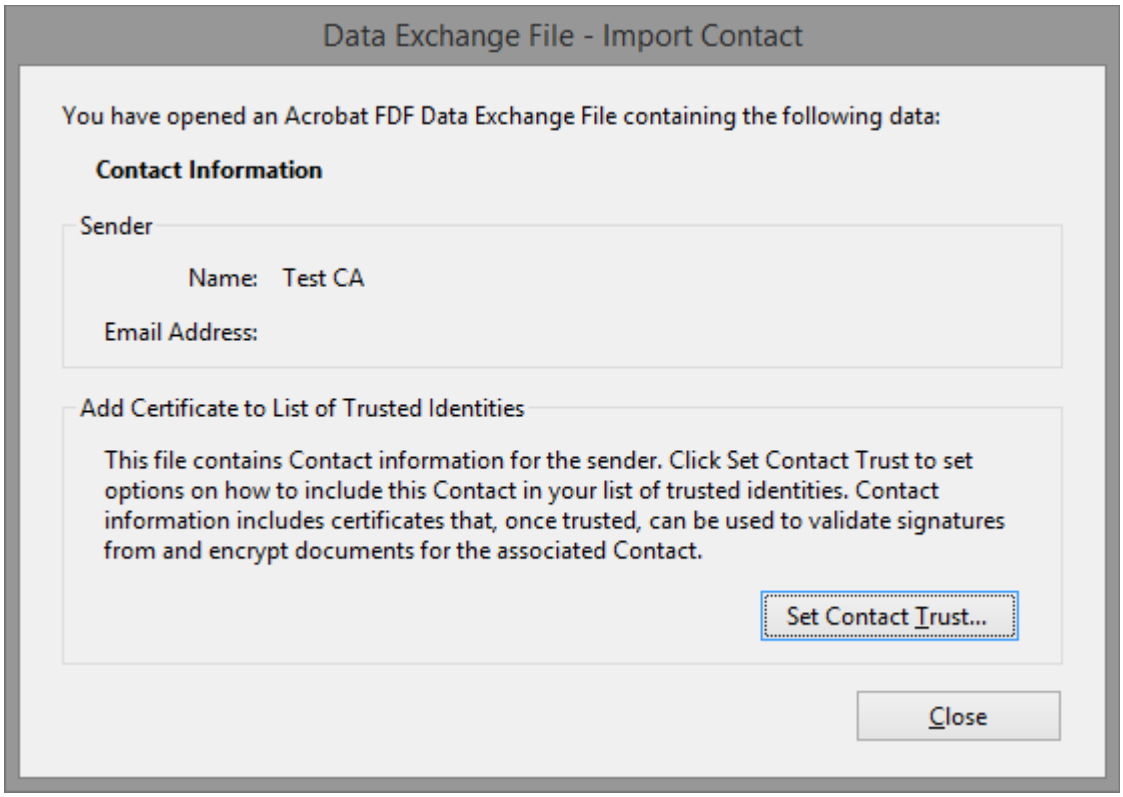
Save the FDF file.



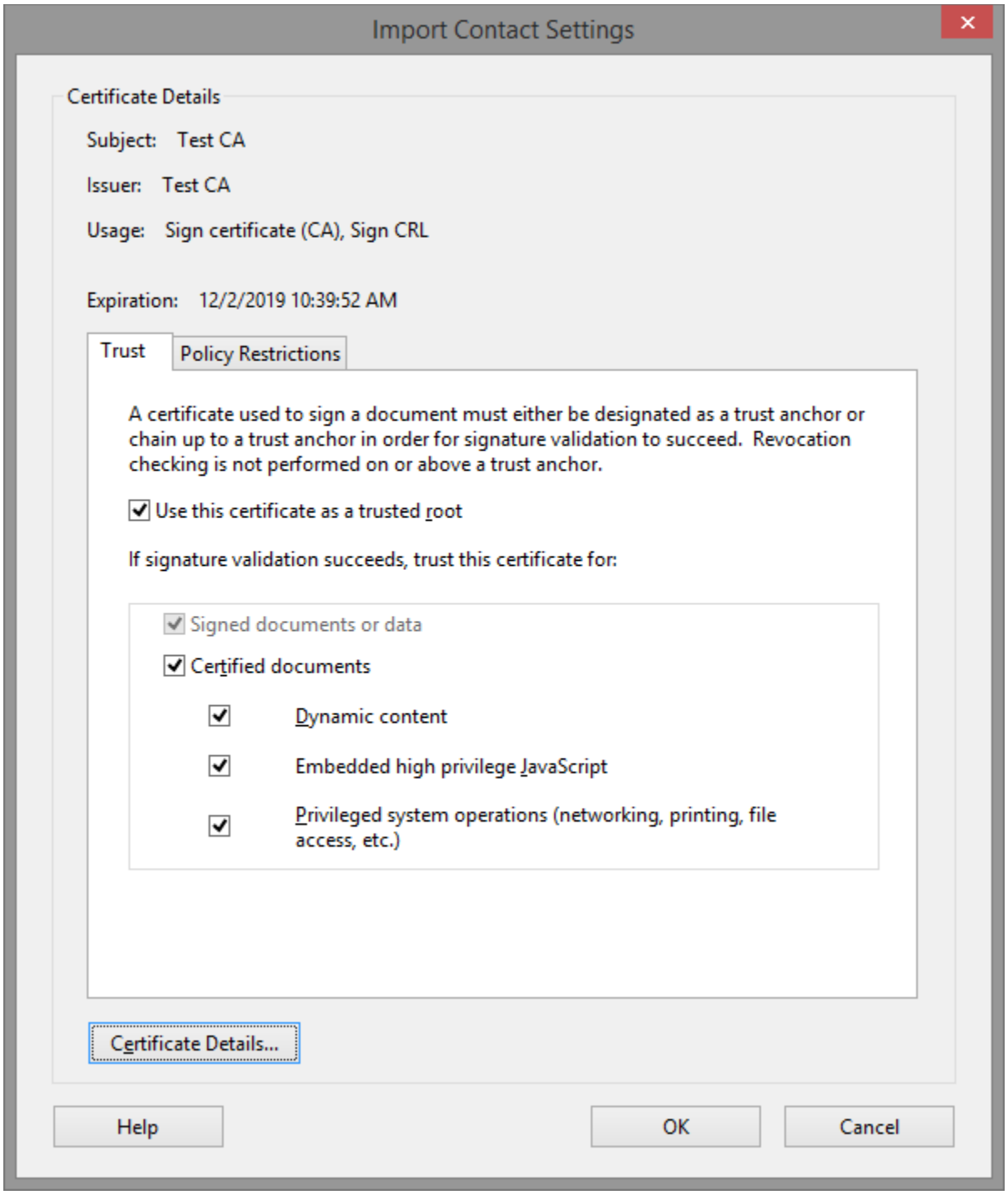
The signature before importing the FDF file is considered “not trusted”, like below:



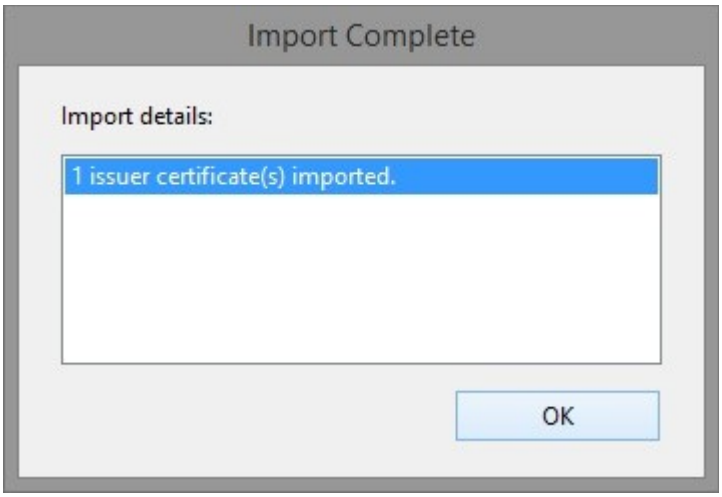
To install the FDF file on the computer where the signature must be validated, open the FDF file, press *Set Contact Trust button* and check al checkboxes, as below:

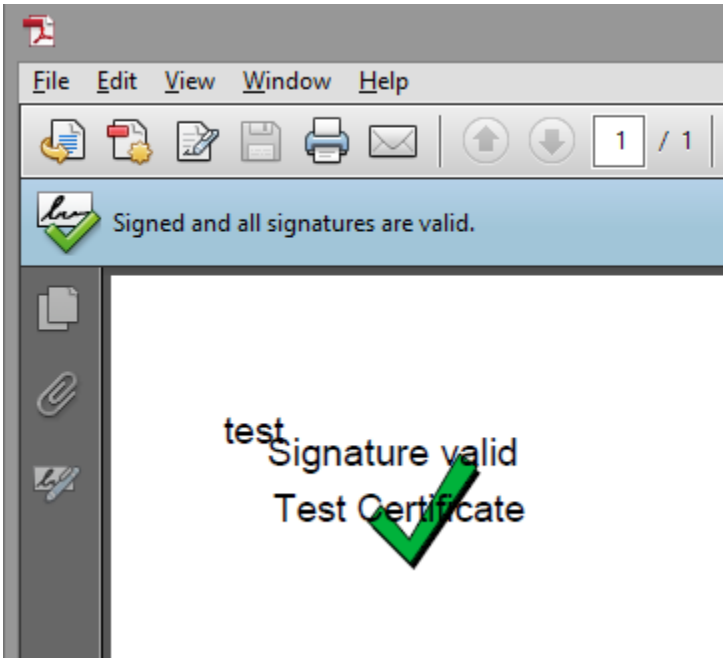


Import the FDF file.



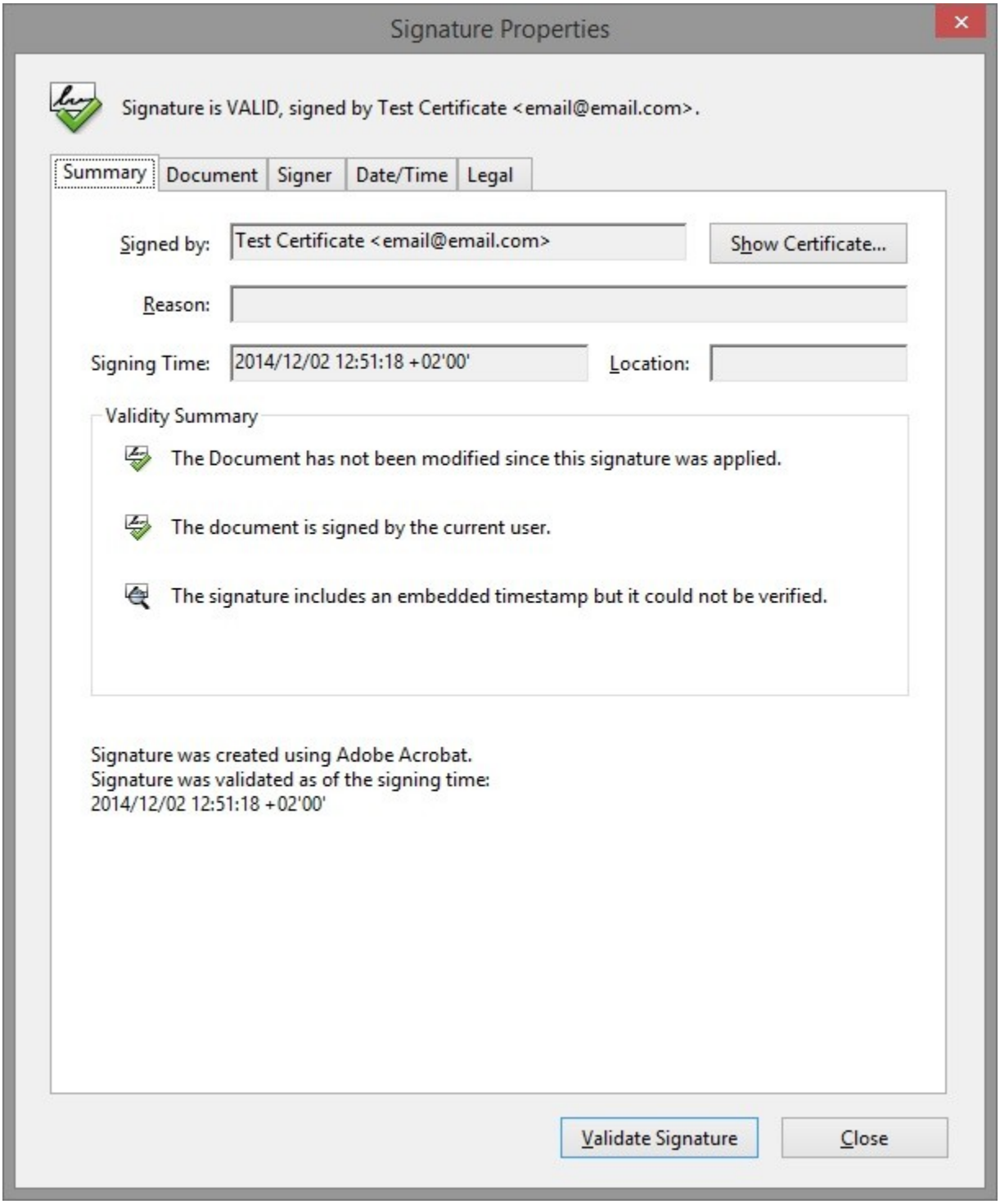
After the FDF file is imported, the signature is considered Trusted.





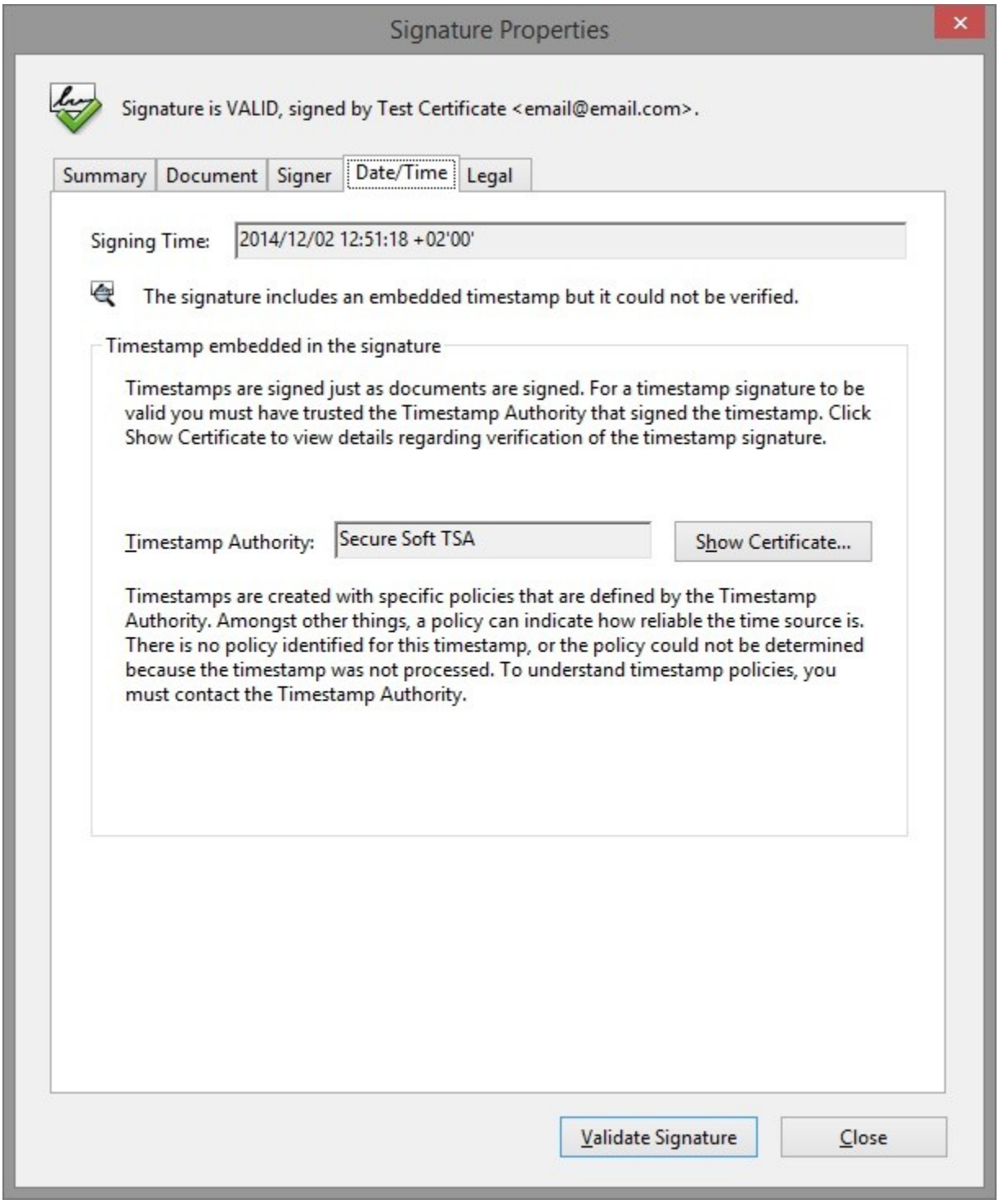
4. Validate Adobe Timestamps

An Adobe Timestamp is in fact a subsequent signature added to the PDF signature so to validate an Adobe Timestamp simply follow the instructions from the section above.

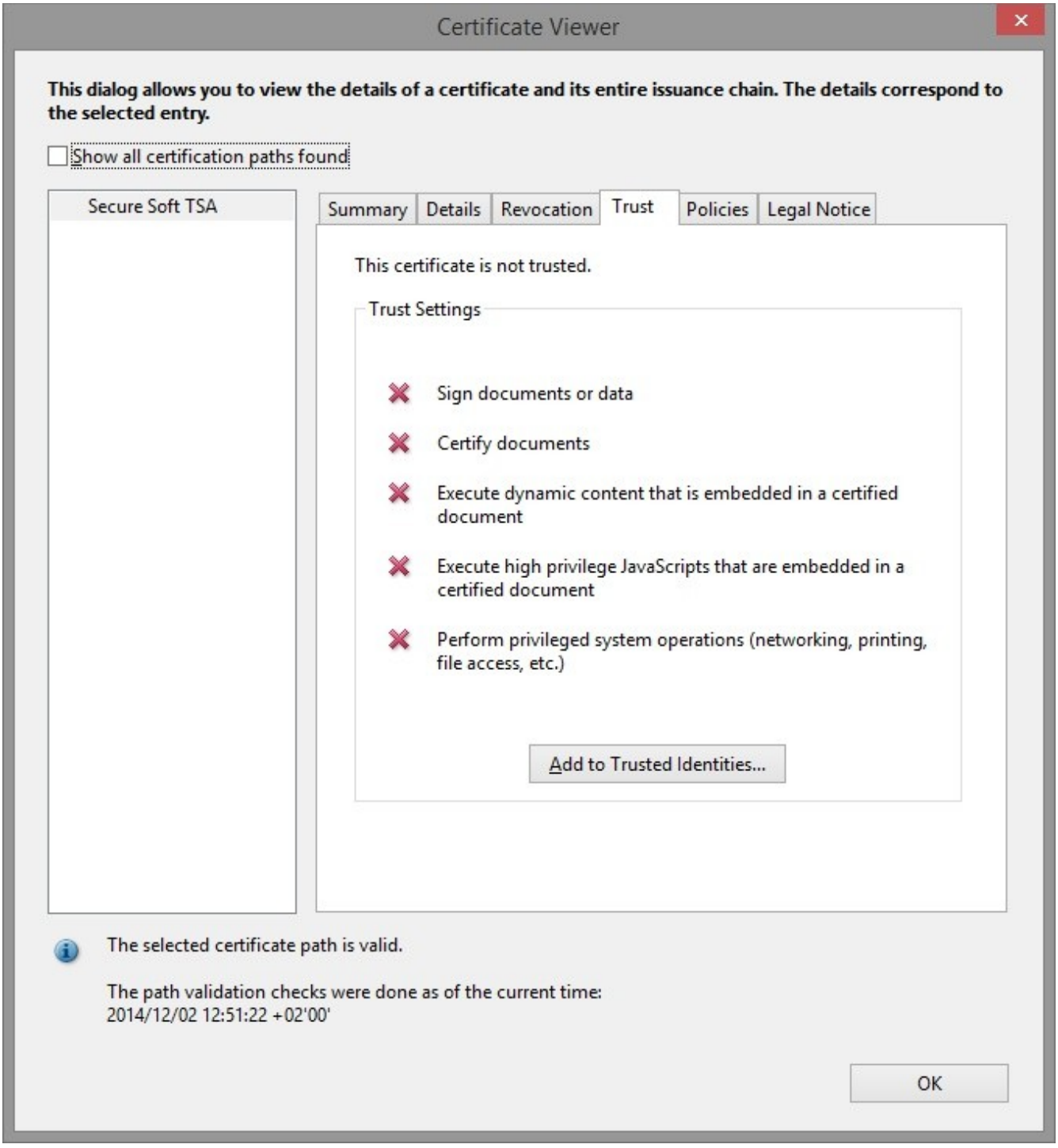


Timestamp in not trusted

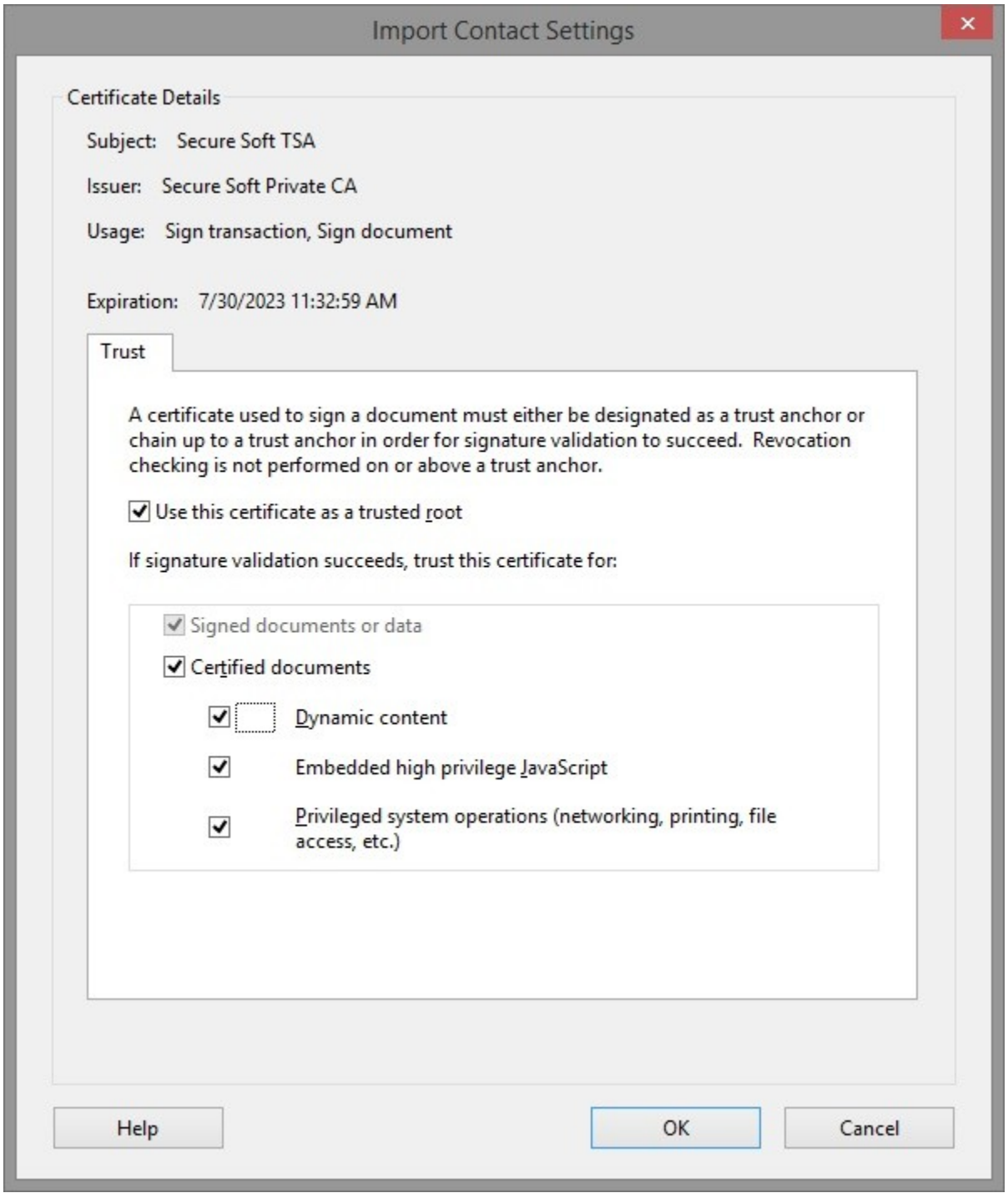
Go to Date/Time Tab and display the Timestamp Authority certificate.



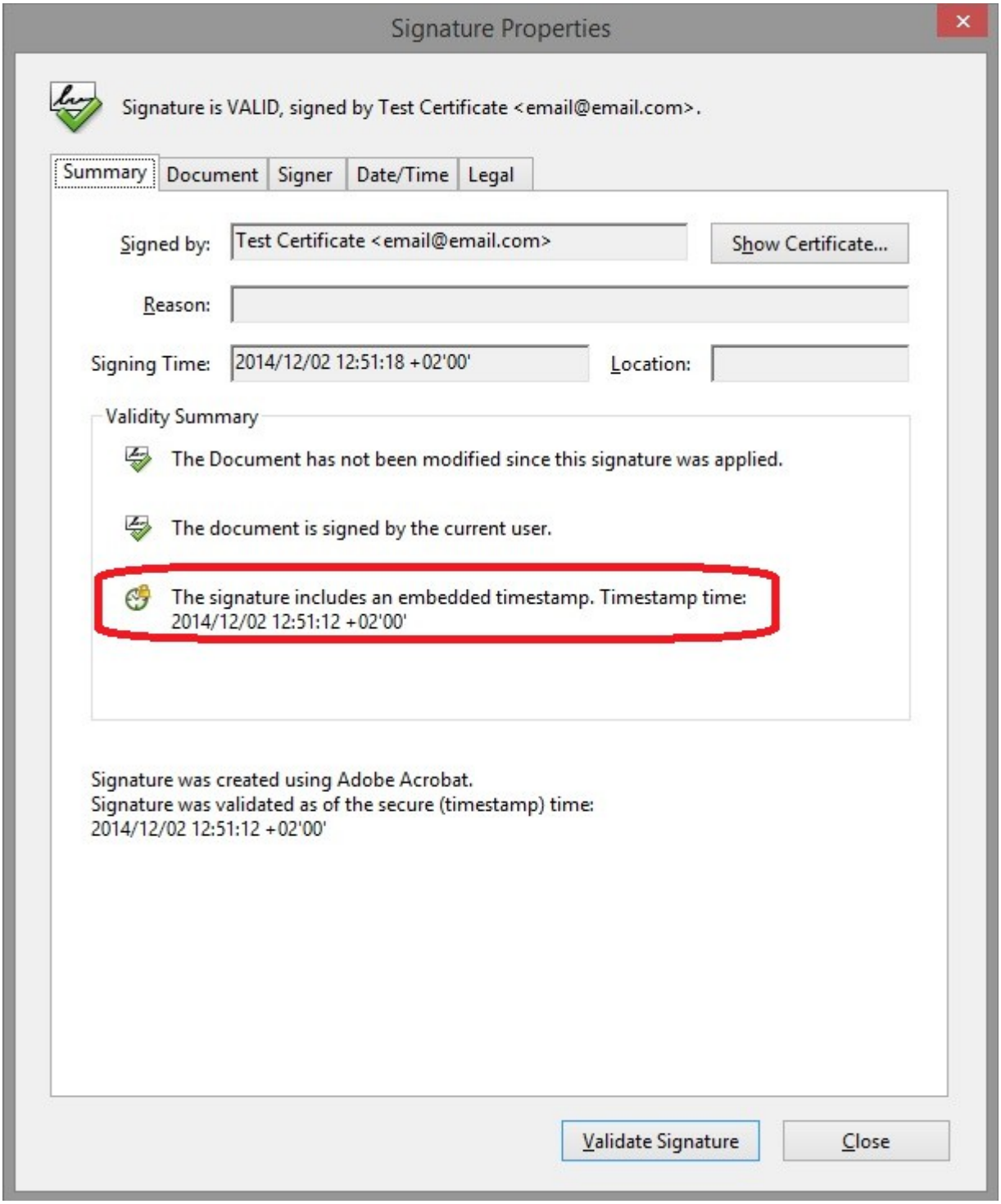
Press Add to Trusted Identities button



Be sure you have checked all checkboxes, as below.



After all dialog boxes are closed and the document is re-opened, the timestamp is considered Valid.

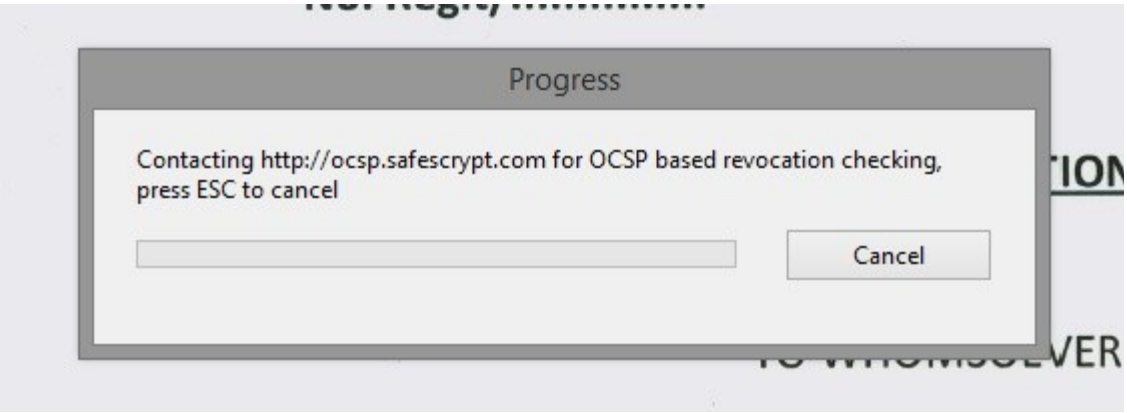


5. Other Validation Settings

In some cases, the digital signature cannot be correctly validated because of some reasons like:
- Internet Conenction is not availabe
- Proxy Settings cannot be set on Adobe
- CRL/OCSP revocation information cannot be downloaded or are not available.

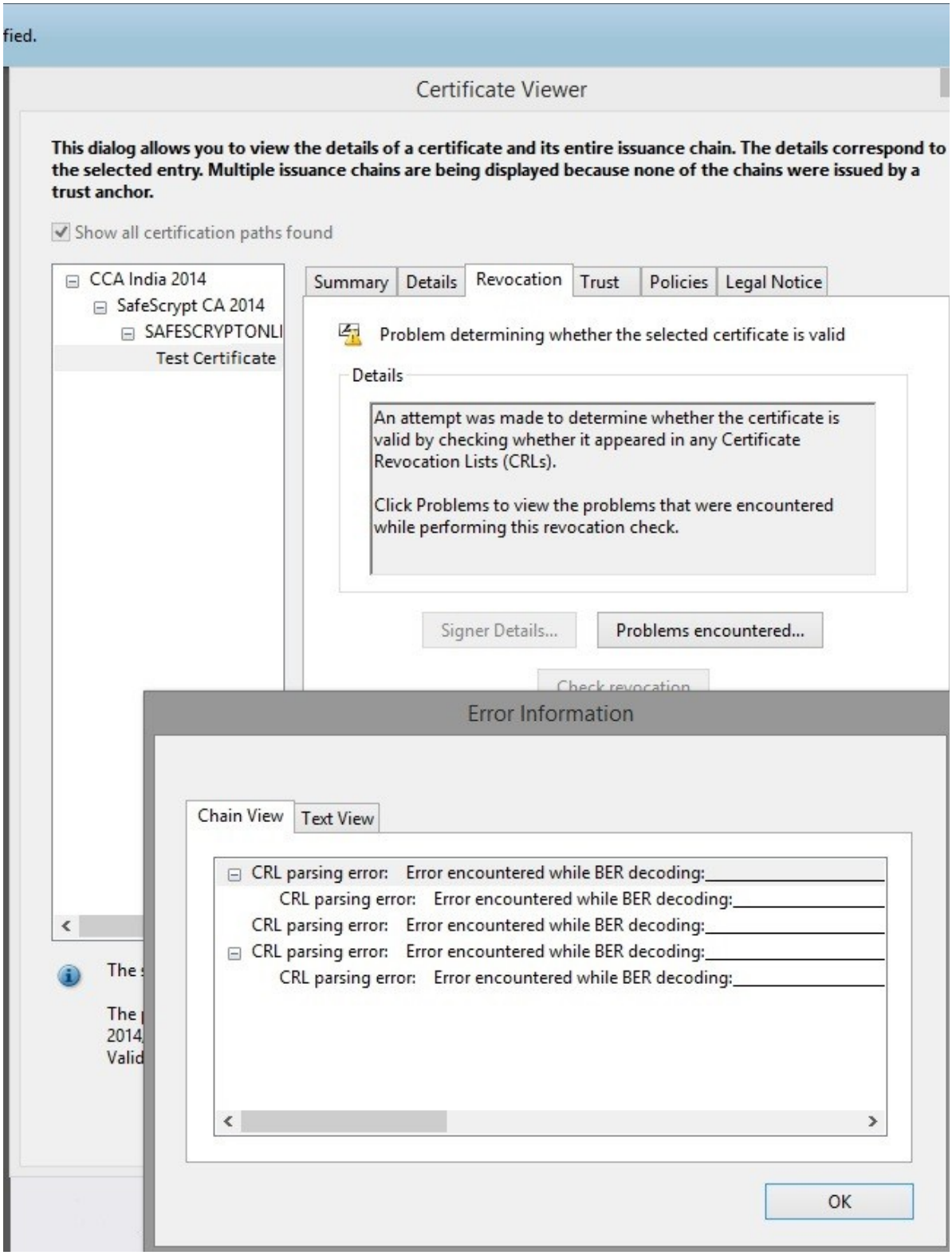
On this case, even if the digital signature is trusted and valid, Adobe will consider this signature “not trusted” because the revocation information cannot be obtained.

This section can be applied when you will get one of the following messages:

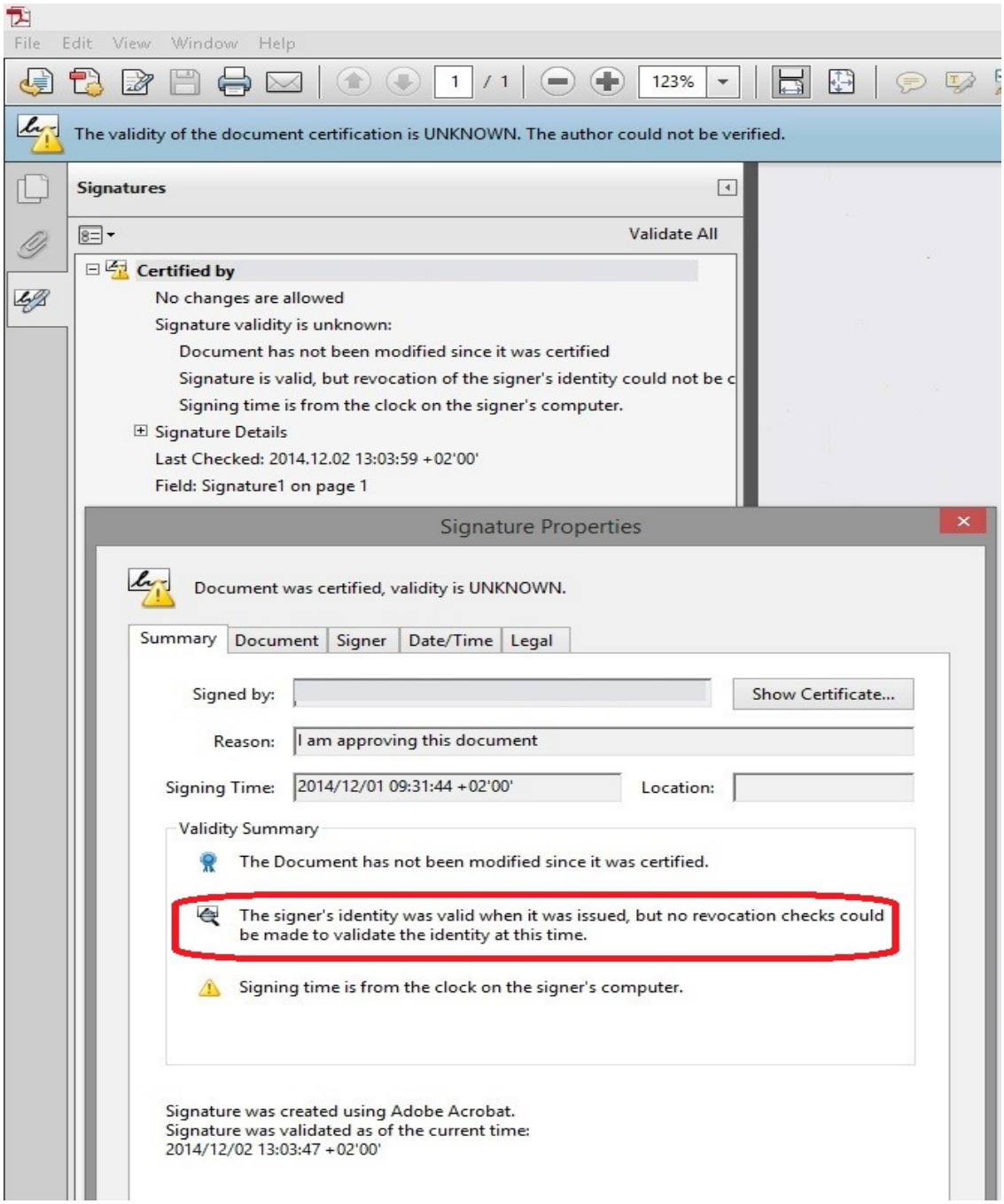


OCSP revocation server is not available

CRL revocation list is not available.

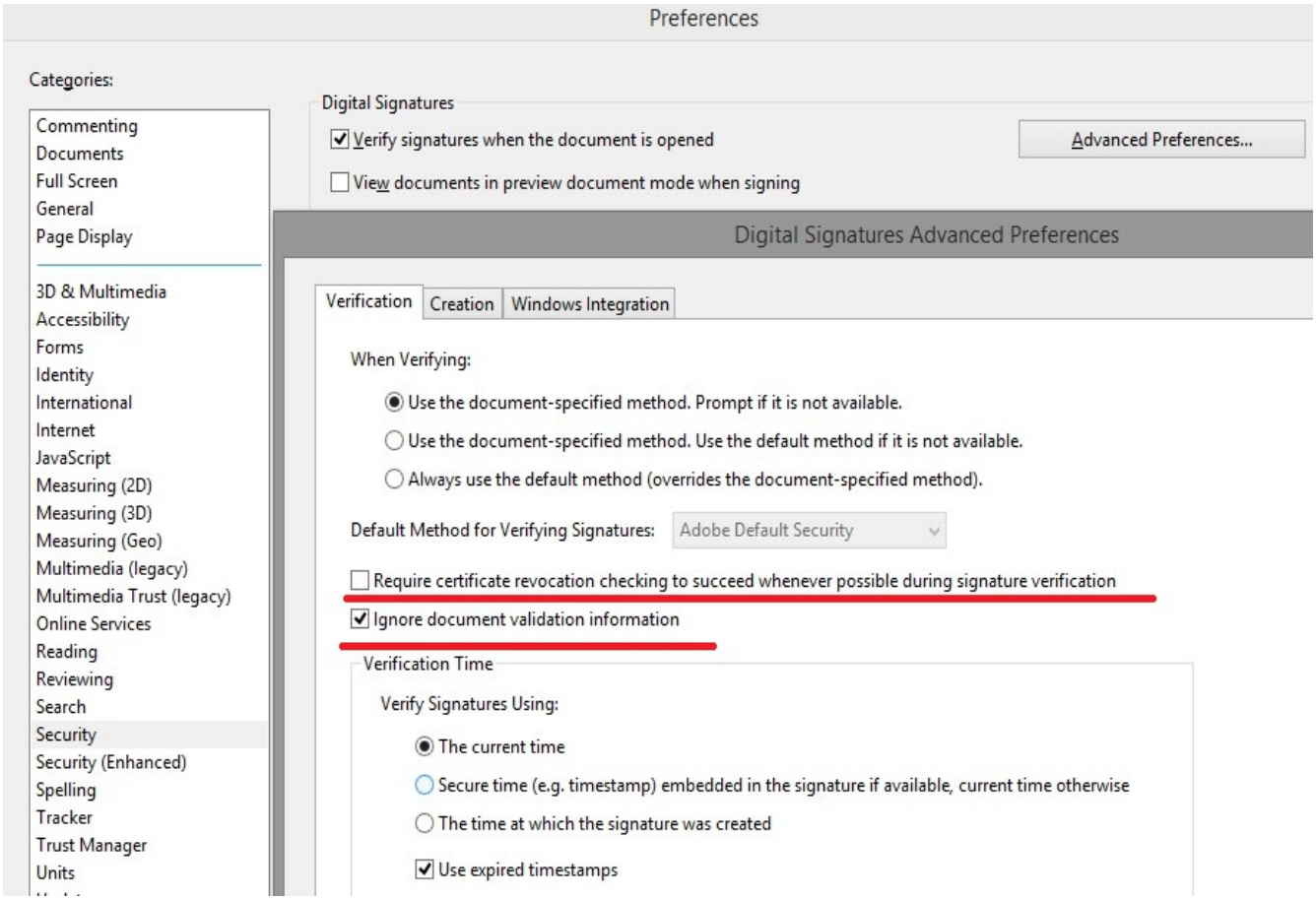


The digital signature is considered not trusted even if the signature is not altered.



To avoid this behavior, Adobe must be configured to bypass this additional revocation checking.

Go to *Edit menu – Preferences option – Security tab – click on Advanced Preferences button – Verification tab* and set the interface as below:



After this settings was saved, the document is considered valid by Adobe.