

This Month's Tips & Tricks Topic:
PDF Digital Signatures - Part 2: Digitally Signing a PDF Document



All PDF-XChange Products allow you to digitally sign your PDF as you create PDF files from any windows based application using the PDF-XChange Standard virtual print driver or after the fact using PDF-Tools or PDF-XChange Viewer (licensed). But a lot of users do not understand the relevance or concepts behind digital signatures and how they can be applied to use with PDF documents. This is Part 2 which will outline how to use the PDF-XChange Viewer Pro's Digital Signature capabilities.

There is a lot of information and specifics to this topic. If there are aspects of Digital Signatures that do not get covered in this article that you would like covered in future articles please email us at sales@tracker-software.com.

If you would like to review or haven't read Part 1 please do so: [PDF Digital Signatures Part 1: The Basics](#)

Digitally Signing a Document using the licensed PDF-XChange Viewer (Pro)

Last month we discussed the basics behind Digital Signatures, the types of Certificates required and how to create your own self-signed certificate. This issue we will look at digitally signing PDF documents, and formatting options for digital signatures using a self-signed certificate.

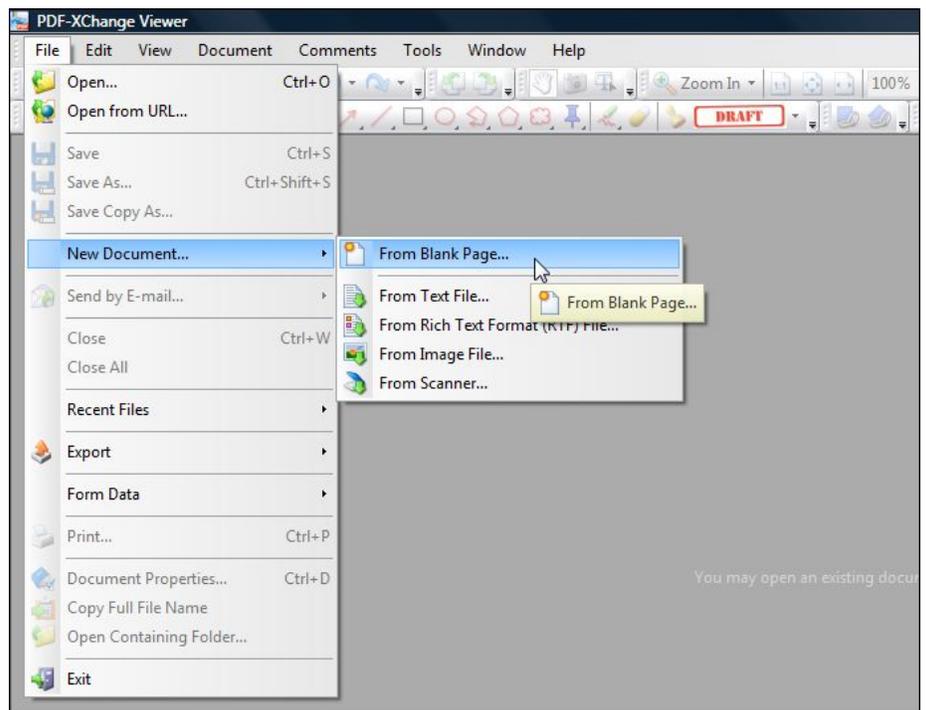
STEP 1

Create a New Blank PDF

Run the PDF-XChange Viewer and create a new blank document using :

File->New Document->From Blank Page

This will open a new empty PDF file.



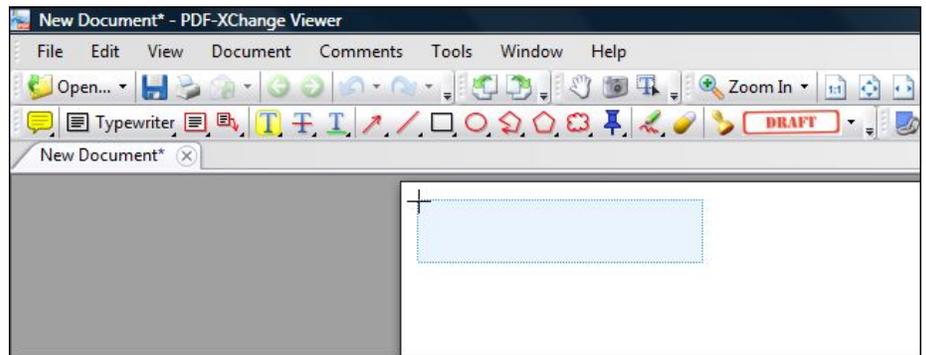
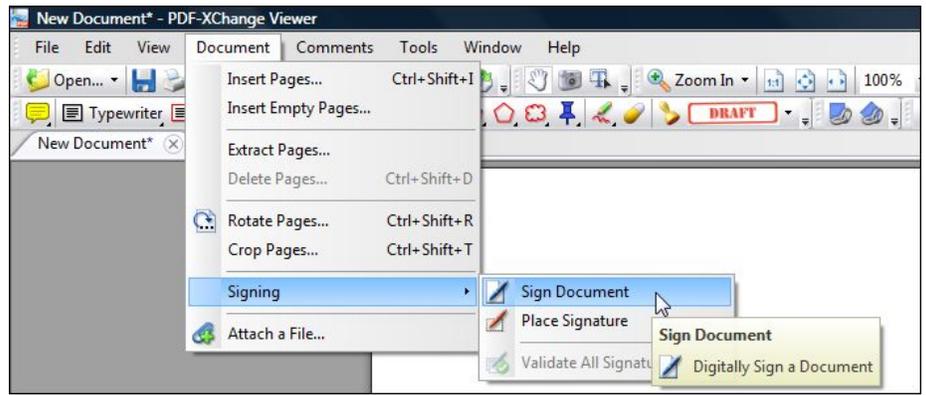
STEP 2 Open Sign Document Settings

To get to the Sign Document settings where we can use the Self-Signed Certificate we created last month, we first have to set a location for the example Digital Signature to reside. Use the menu command:

Document->Signing->Sign Document

Your cursor will turn into a crosshair with a light blue box attached to it. Select where you want your Digital Signature to be placed on the document and click your left mouse button to place the signature outline rectangle.

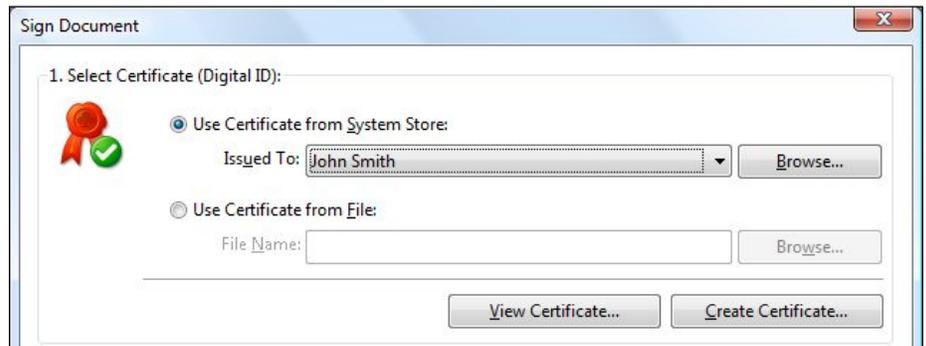
This will open up the Sign Document Dialog, where all the options for Digitally Signing a document can be set in the Viewer.



STEP 3 Select Certificate

For this example we are going to use the self-signed certificate we created in Part 1 by selecting the certificate name from the Issued To: dropdown box. Or if you chose to create your certificate as a file, check Use Certificate from File and Browse to find the file you created of your certificate to be added to the document.

To View the properties of the certificate you created or have purchased through a Certificate Authority (CA), select the Certificate and click View Certificate.



STEP 4 Setup & Appearance

In Section 2, you can select a Reason for signing the document if you wish, and enter your location and contact details. There are several ways you can format how the signature will be displayed. Four default templates are provided and you if you like, you can customize and save them according to your preferences.

2. Setup Details and Appearance for Sign:

Reason for Signing:

Location:

Contact Info:

Sign Template:

John Digitally signed by John Smith
 DN: cn=John Smith, c=CA, o=Test Corporation, ou=Accounting, email=jsmith@testcorp.com
 Reason: I attest to the accuracy and integrity of this document
 Location: 9622 Chemainus Rd, Chemainus, BC V0R 1K0 Canada
 Date: 2011.03.01 10:07:07 -08'00'

** You may change the appearance of the digital sign by clicking on the preview above.

STEP 5 Choosing and Managing Templates

You can choose a default template from the dropdown list. Click the Signature Preview or Manage to choose and/or customize a template to your liking. There are 2 templates with Graphics and 2 without, each having orientations of Left to Right (LTR) or the Default in this case, or Right To Left (RTL). To use a default template click the one you want and then Close.

Digital Sign Appearance Templates

You may choose a template of digital sign by double clicking from list below:

<p>Digitally signed by <Sample Name> DN: cn=<Sample Name>, c=<Country Name>, o=<Organization Name>, ou=<Organization Unit Name>, email=<sample@gmail.com> Reason: <Sample Reason Text> Location: <Sample Location Text> Date: 2011.03.01 10:49:06 -08'00'</p> <p>Default</p>	<p>Digitally signed by <Sample Name> DN: cn=<Sample Name>, c=<Country Name>, o=<Organization Name>, ou=<Organization Unit Name>, email=<sample@gmail.com> Reason: <Sample Reason Text> Location: <Sample Location Text> Date: 2011.03.01 10:49:06 -08'00'</p> <p>Default (RTL)</p>
<p>Digitally signed by <Sample Name> DN: cn=<Sample Name>, c=<Country Name>, o=<Organization Name>, ou=<Organization Unit Name>, email=<sample@mail.com> Reason: <Sample Reason Text> Location: <Sample Location Text> Date: 2011.03.01 10:49:06 -08'00'</p> <p>Default (No Graphic)</p>	<p>Digitally signed by <Sample Name> DN: cn=<Sample Name>, c=<Country Name>, o=<Organization Name>, ou=<Organization Unit Name>, email=<sample@mail.com> Reason: <Sample Reason Text> Location: <Sample Location Text> Date: 2011.03.01 10:49:06 -08'00'</p> <p>Default (No Graphic, RTL)</p>

If you would like to customize your own template, you can Edit the default templates or keep them intact and click Clone to make a copy of one of the templates to customize. I have selected the Default w/ Graphic template and clicked clone to create the Default(2) template shown.

Digital Sign Appearance Templates

You may choose a template of digital sign by double clicking from list below:

<p>Digitally signed by <Sample Name> DN: cn=<Sample Name>, c=<Country Name>, o=<Organization Name>, ou=<Organization Unit Name>, email=<sample@mail.com> Reason: <Sample Reason Text> Location: <Sample Location Text> Date: 2011.03.01 10:49:06 -08'00'</p> <p>Default (No Graphic)</p>	<p>Digitally signed by <Sample Name> DN: cn=<Sample Name>, c=<Country Name>, o=<Organization Name>, ou=<Organization Unit Name>, email=<sample@mail.com> Reason: <Sample Reason Text> Location: <Sample Location Text> Date: 2011.03.01 10:49:06 -08'00'</p> <p>Default (No Graphic, RTL)</p>
<p>Digitally signed by <Sample Name> DN: cn=<Sample Name>, c=<Country Name>, o=<Organization Name>, ou=<Organization Unit Name>, email=<sample@gmail.com> Reason: <Sample Reason Text> Location: <Sample Location Text> Date: 2011.03.01 11:43:07 -08'00'</p> <p>Default (2)</p>	

Now with my cloned template selected, Click Edit to customize its appearance. Note that you can create as many different templates as you require and they will be selectable each time you sign a document.

STEP 6

Customizing the Template

The first thing I am going to do is rename my template to something meaningful. In this example I am going to use a scanned image of my signature as the Icon graphic for my digital signature, hence the template name will be "Signature".

Under Show Graphics check No Icon for no graphic, Name as Icon to show an enlarged version of the name on the certificate or Custom Icon, and Choose... a graphic to be displayed. I am Choosing to include an image of my signature.

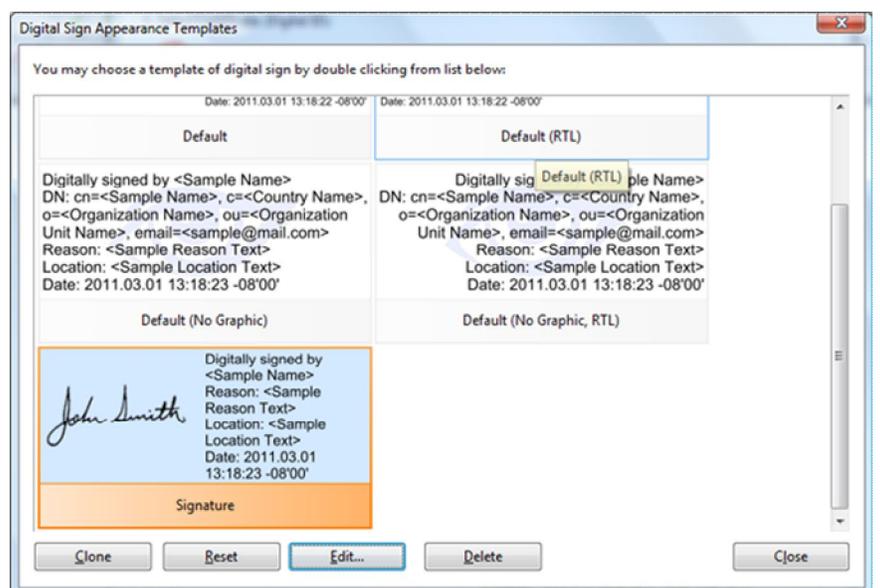
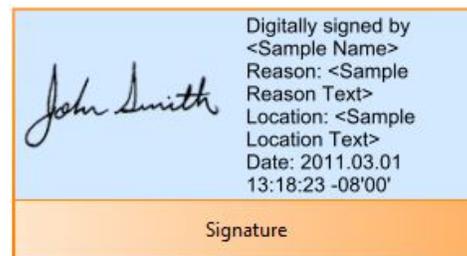
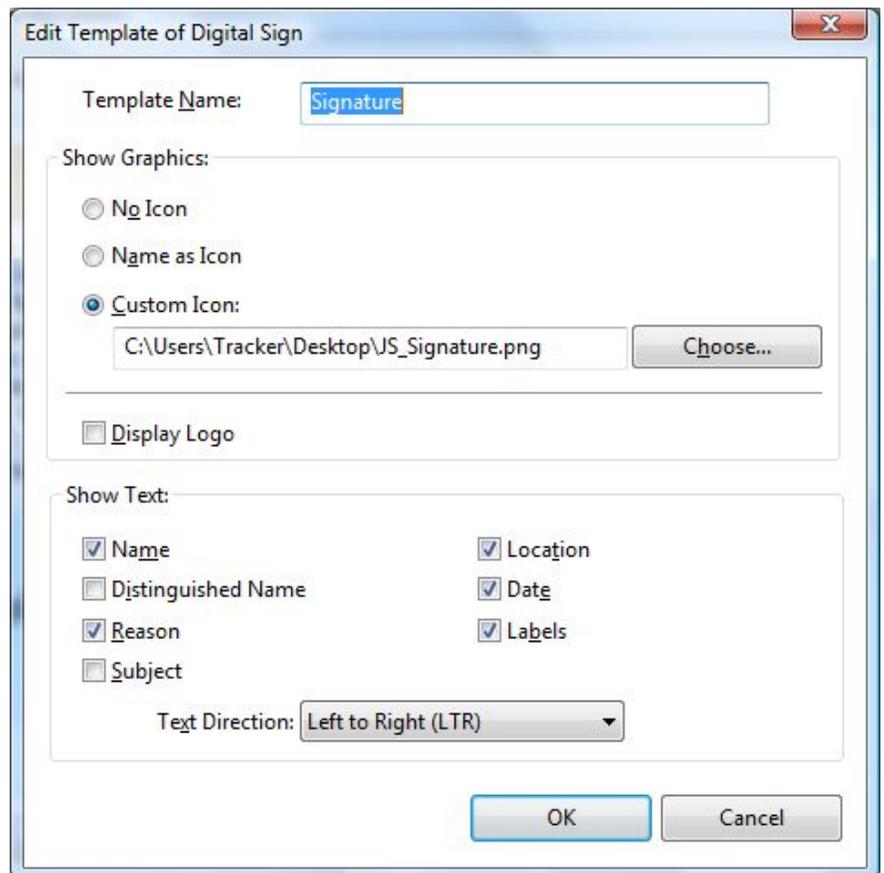
Display Logo refers to the watermarked "eye" image in the background of the default templates, un-checking this option will not display the program logo.

Show Text options describe what information within your digital signature you want displayed along side the graphic, set the options you want.

Text Direction describes whether you want to display and justify your text displayed to the left or to the right starting with the graphic if selected. I'm choosing *Left to Right* to display my graphic first and then left justified text alongside it.

Once you are satisfied with the format you have created, click OK

The resulting preview will now be included as your new template in the templates list. Double click your custom template to apply it as the format you want displayed when digitally signing the document. Or select it and Click Close.



STEP 7 Time Stamping

Now that your template is selected and previewed in the appearance section, you can add a timestamp if required.

Trusted timestamping is the process of securely keeping track of the creation and modification time of a document. Security here means that no one, not even the owner of the document, should be able to change it once it has been recorded as long as the timestamper's integrity is never compromised.

The administrative aspect involves setting up a publicly available, trusted timestamp management infrastructure to collect, process and renew timestamps.

To include and setup Timestamping, check Use Timestamp Server and click Manage. The Timestamp Servers list will open. Click Add to add a Timestamp server to the list. Enter your timestamp server information and click OK.

Select the Timestamp server you've just added and click Close.

The name of your timestamp server will now be filled in the field at the bottom of the Appearance settings. Review your settings and once satisfied click OK to Sign the document.

Use Timestamp Server:

Add New TimeStamp Server

Name: timeserver.testcorp

Server Settings:

Server URL: timeserver.testcorp.com

Server Requires Authentication

User Name: jsmith

Password: ●●●●●●

Timestamp Servers

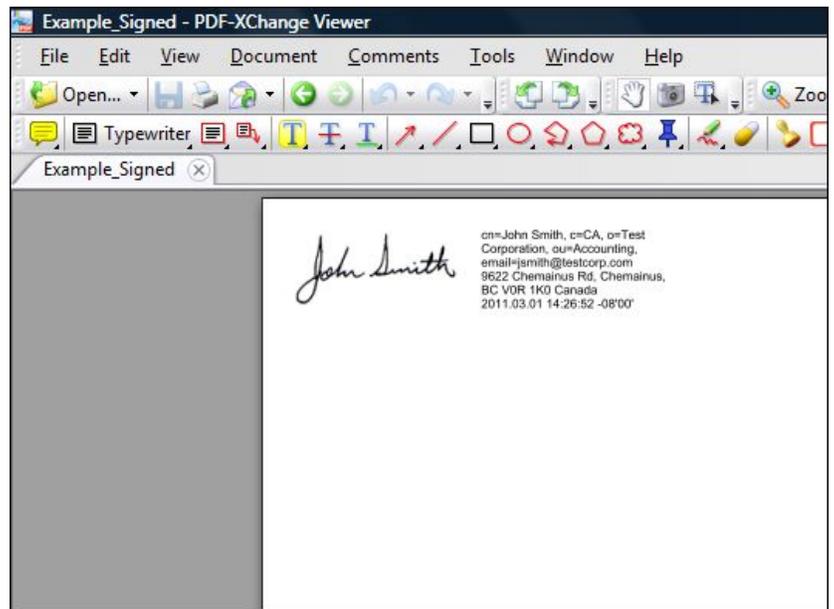
Name	URL
timeserver.testcorp	timeserver.testcorp.com

Use Timestamp Server: timeserver.testcorp

STEP 8

Saving the Signed Document

As explained in Part 1, last month, when applying a digital signature, the PDF will become encrypted as part of the signing security protocol. The Viewer will now prompt you to save your Signed document to a new file which will now be encrypted and signed using the certificate you created. Once created the document will open and the Digital Signature displayed as per your option settings.

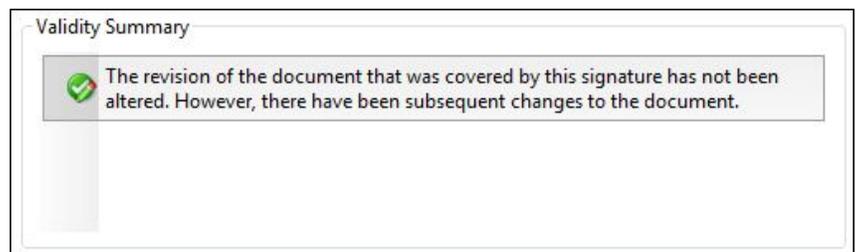


STEP 9

Validation of a Digital Signature

To check the validity of the Digital Signature applied to your document or to check a document that someone else has signed and sent you, simply double click anywhere within the signature boundary. This will open the Signature Properties window, if the document is in the state it was when the signature was applied it will be immediately noticeable, in the Validity Summary, stating that The document was not modified since the signature was applied.

Should the PDF file be altered in even the slightest way, I've added the letter "A" using the typewriter tool and The validity summary reports the though the document revision is the same, there have been subsequent changes to made to the document.



Next Month: Part 3 – Digitally Sign documents during creation using PDF-XChange Standard/Pro and PDF-Tools

If you have any topics you would like to see covered in this newsletter please email us at:

sales@tracker-software.com.



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 Developers now have several Software Development Kit options to harness the power of our end-user PDF and Imaging products and integrate them into your own applications in virtually any programming environment.
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Developers will be pleased to know that in the latest Viewer ActiveX SDK, the ActiveX control no longer requires registration on the client machine. Using Microsoft "One-Click" technology, end-users do not require an administrator account to install and register the Viewer ActiveX Control. Developers now have several Software Development Kit options to harness the power of our end-user product's robust offering.

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