# Digital Signature Guide



April 2023

Department of Veterans Affairs

Revision History

| Date | Version | Description | Author |
| --- | --- | --- | --- |
| April 2023 | 4.2 | Update to reflect enhancements to some versions of Adobe Acrobat DC | Quality Continuous Improvement Organization (QCIO) |
| August 2020 | 4.1 | Update to screen shots and procedures for adding digital signatures with Adobe Acrobat DC Reader | QCIO |
| July 2019 | 4.0 | Update to address current versions of Adobe Acrobat and MS Word and added section for preserving links in Adobe Acrobat forms | QCIO |
| January 2018 | 3.1 | Add instructions for adding a signature field using Adobe Acrobat DC Reader | QCIO |
| December 2017 | 3.0 | Add instructions for Adobe Acrobat DC | QCIO |
| May 2015 | 2.4 | Reordered cover sheet to new documentation standards, updated to reflect that all users on VA networks must have PIV cards, instruct removal of watermarks, added section for digitally signing PDF artifacts in SharePoint libraries, and removed references to Adobe Acrobat X | Process Management |
| November 2013 | 2.3 | Converted to MS Office 2007-2010 format and added instructions for Adobe Acrobat XI Professional | Process Management |
| January 2012 | 2.2 | Update tables and graphics for section 508 conformance | Process Management |
| December 2011 | 2.1 | Clarified certificate information and added information on SharePoint displays | Process Management |
| November 2011 | 2.0 | Add instructions to create a digital signature in Microsoft Word | Process Management |
| November 2011 | 1.2 | Added specific instructions to create a form with Adobe Acrobat X Professional | Process Management |
| November 2011 | 1.1 | Added instructions to create a digital signature in Adobe Acrobat | Process Management |
| September 2011 | 1.0 | Initial document | Process Management |

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Digital Signature Guide

## Purpose

The procedures described in this document provide a means for guiding project staff in the proper creation of documentation requiring digital (electronic) signatures.

A digital signature, like a conventional handwritten signature, identifies the person signing a document. Unlike a handwritten signature, a digital signature is difficult to forge because it contains encrypted information that is unique to the signer and easily verified.

To sign a document, you must have a digital ID. The digital ID contains a private key and a certificate, also known as a public key. The private key adds the digital signature, and the certificate that you share with people who use it to validate your signature. All users on the VA network, whether Federal employees or contractors, must have a PIV card, which contains a Digital Signature Key (DSK) to enable digital signatures and for encryption of e-mail. DSKs cannot be exported from the PIV card.

## Apply Digital Signatures to an Adobe Acrobat Document

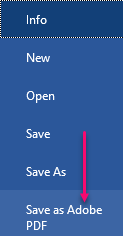
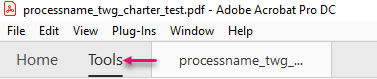
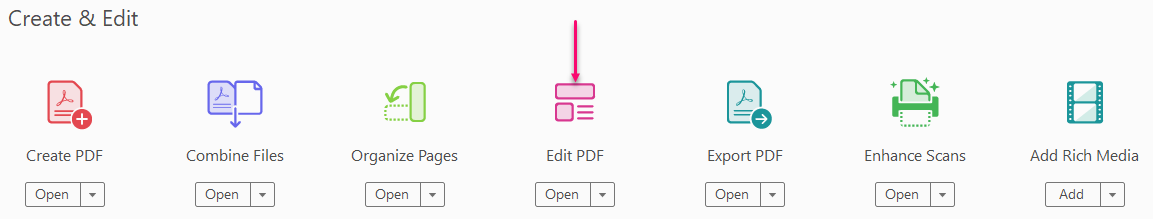
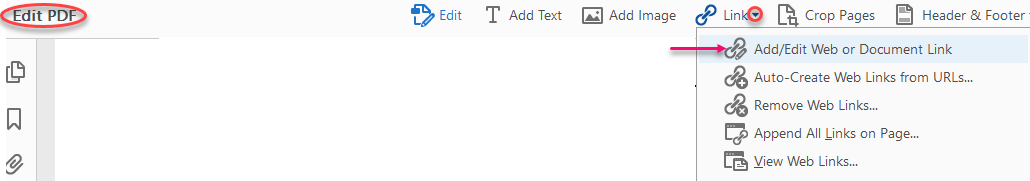
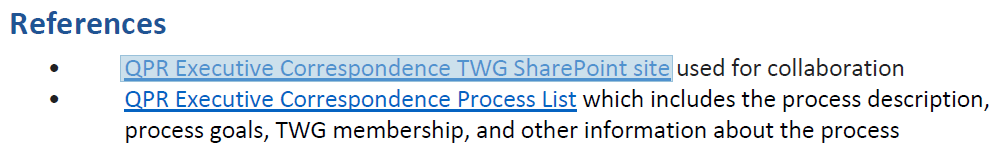
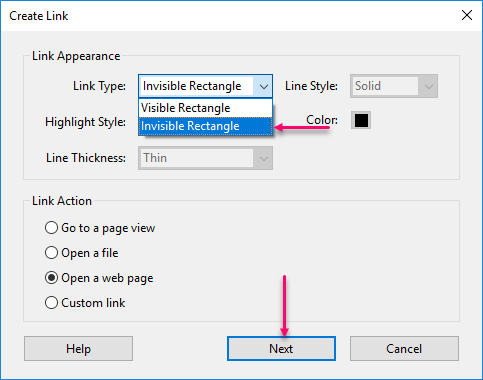
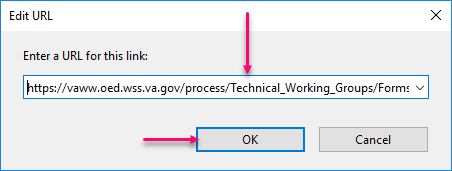
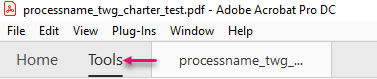
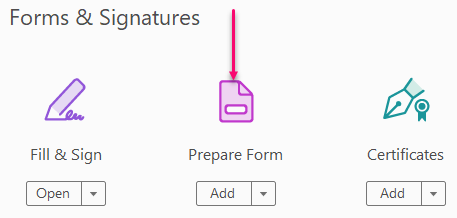
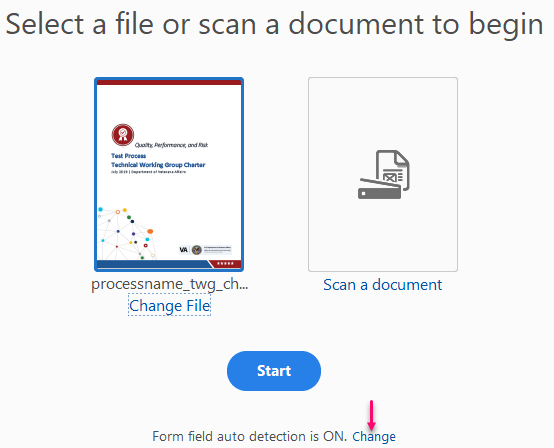
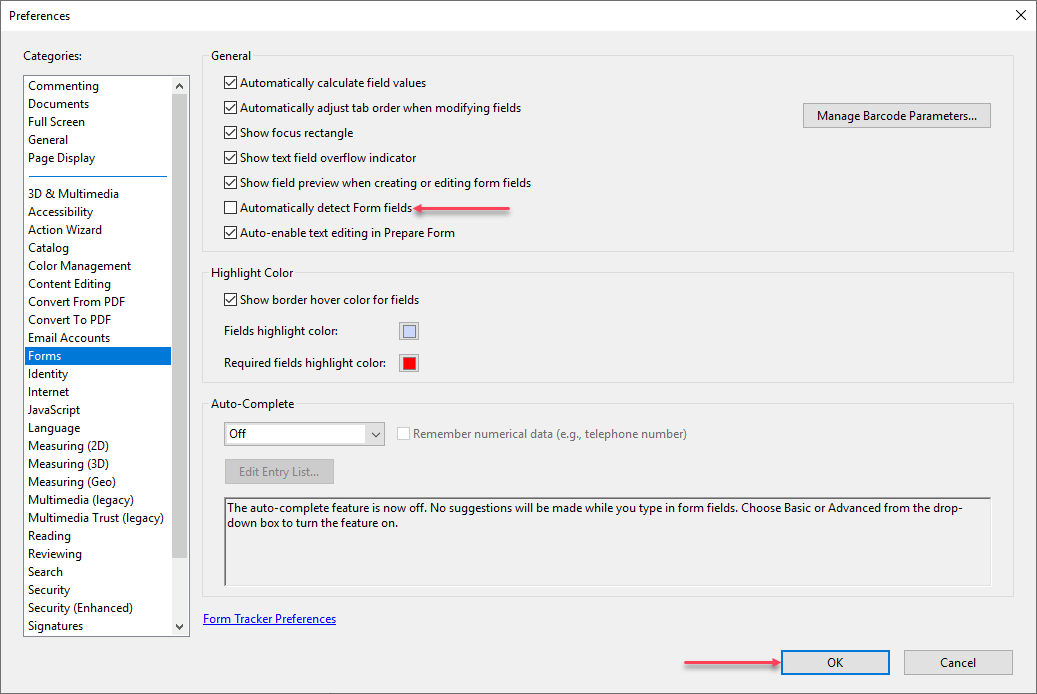
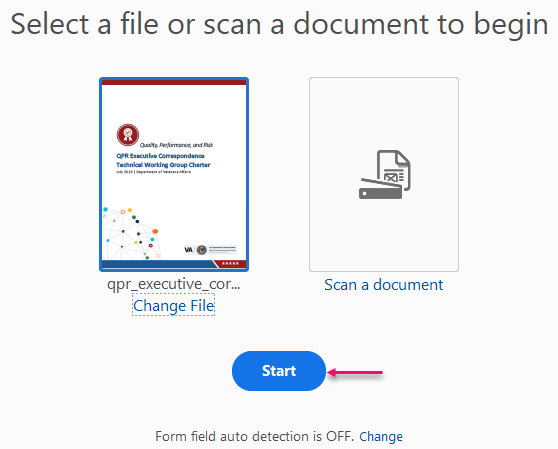
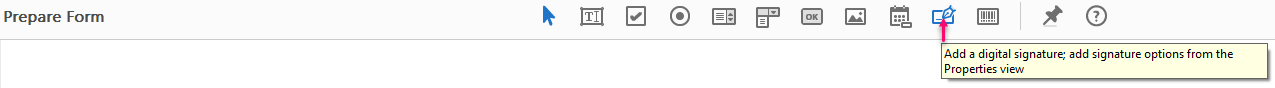
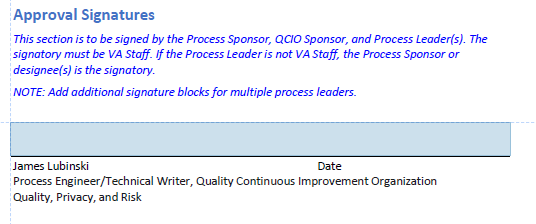
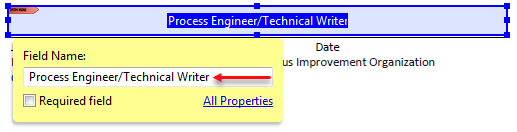
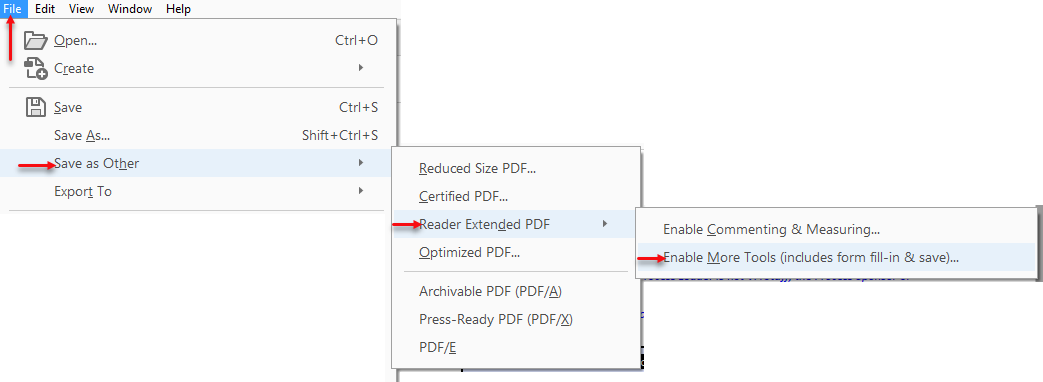
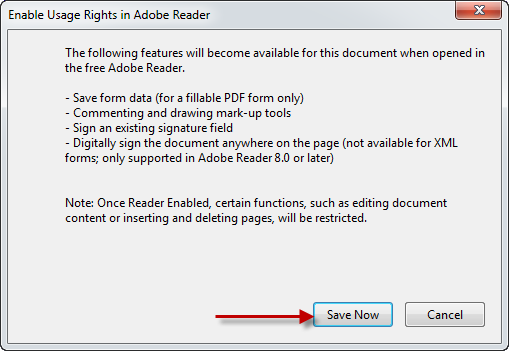
Adobe Acrobat allows the convenient creation of documents that can be digitally signed. A disadvantage to the use of Adobe Acrobat to create and manage documents with digital signatures is the licensing costs. The creator of the document must use Adobe Acrobat Professional. Those who sign the document only need Adobe Acrobat Reader.

When you apply a digital signature, Acrobat uses a hashing algorithm to generate a message digest, which it encrypts using your private key. Acrobat embeds the encrypted message digest in the PDF, along with details from your certificate, an image of your signature, and a version of the document at the time it was signed.

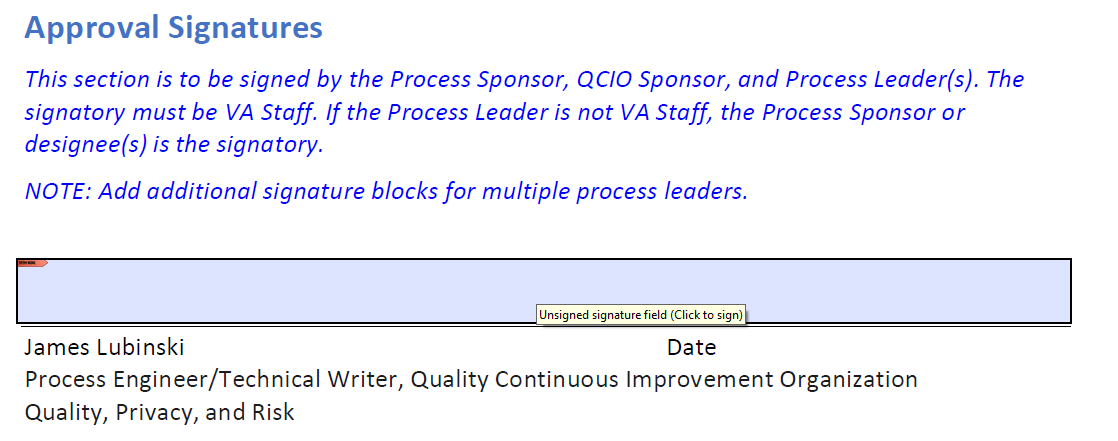
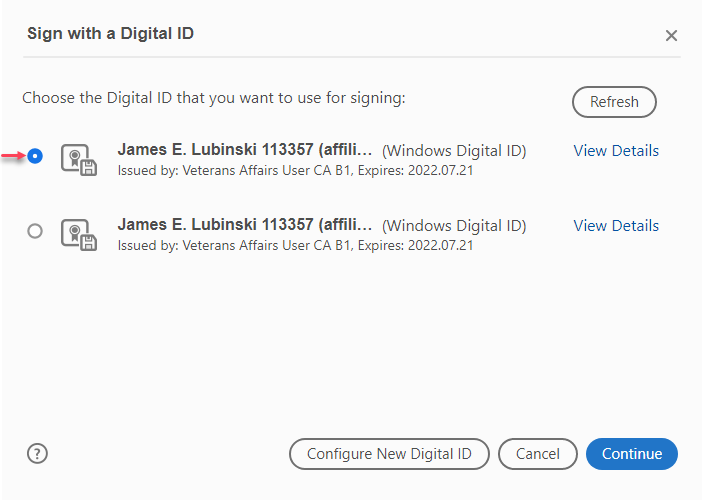
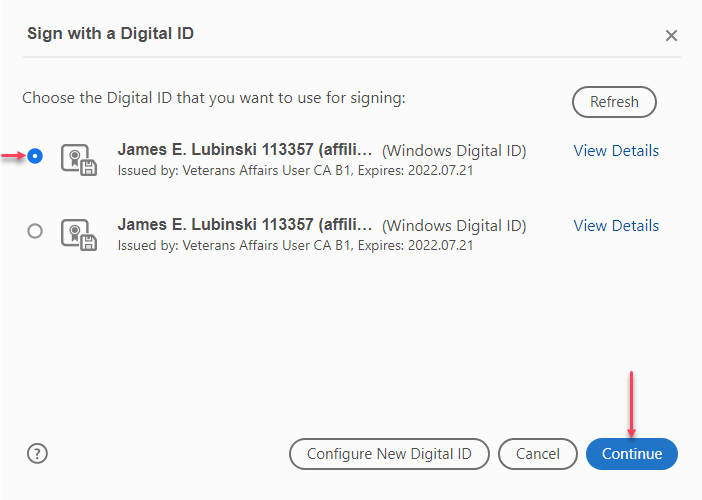
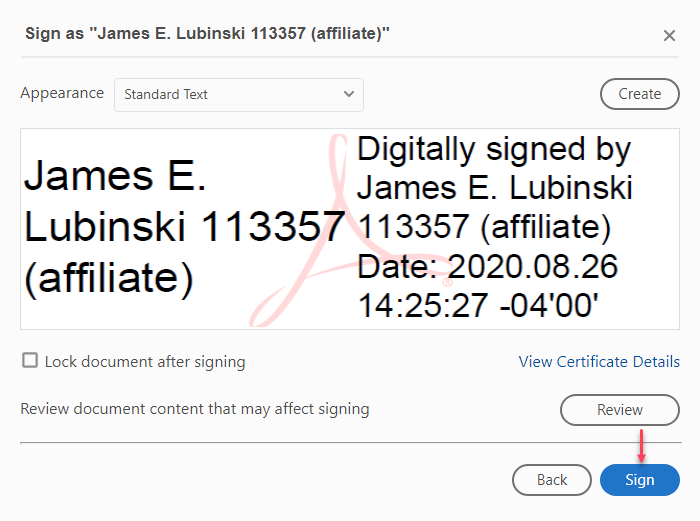
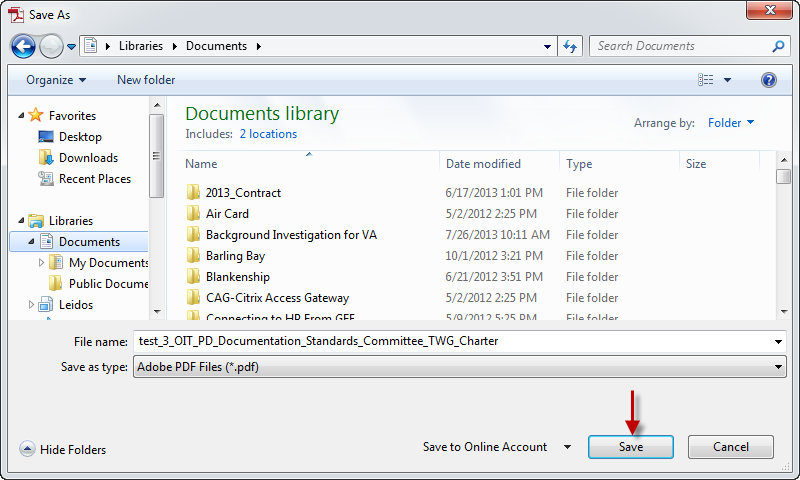
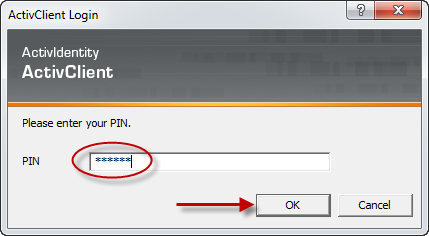
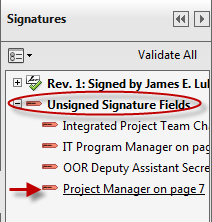
Note: Complete the following tasks as part of final preparation for artifact:

1. Resolve all changes and comments in the artifact file
2. Remove the ‘DRAFT’ watermark
3. Verify that all figures in the document are flat file (not layered) and have Alt text applied
4. Prepare signature lines for all required signers
5. Run a final Spell Check
6. Run required 508-compliance checks and resolve accessibility issues

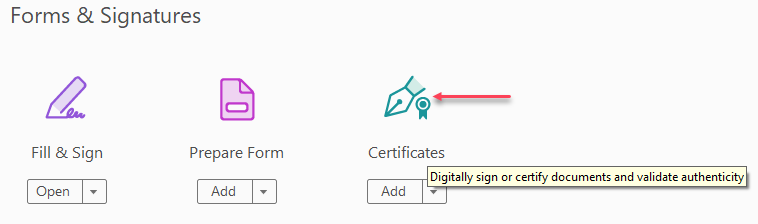
### Create a Form in Adobe Acrobat Professional DC

1. Create the document in Word
2. Save as Adobe PDF  
     
     
   
3. Select the **Enable All Features** button in the **Protected View pop-up window** if it displays  
   Enable All Features button highlightec
4. Select **Tools** in the toolbar  
     
    **NOTE**: If your document contains links:
   1. Select **Edit PDF** in the **Create & Edit** section  
      
   2. Select **Add/Edit Web or Document Link** selected from **Link** drop down menu  
      
   3. Choose a starting point, click the mouse, and drag to display a rectangle to define the **Link** field  
      
   4. Select **Invisible Rectangle** highlighted in **Link Type** drop down menu, and click the **Next** button  
      
   5. Type the URL in the **Enter a URL for this link** field and click the **OK** button   
        
        
      **NOTE**: Repeat for all links you wish to add
5. Remediate the PDF for Section 508 conformance
6. Select **Tools** in the toolbar  
   
7. Select **Prepare Form** from the **Forms & Signatures** section  
   
8. Select the **Change** link adjacent to the **Form field auto detection** line if Form field auto detection is **ON**  
   
9. Deselect the **Automatically detect Form fields** checkbox in the **Preferences** pop up window, accept defaults, and then select the **OK** button  
    
10. Save your changes and click the **Start** button  
    
11. Select the **Add a digital signature** icon in the **Prepare Form** toolbar  
    
12. Choose a starting point, click the mouse, and drag to display a rectangle to define the **Digital Signature** field  
    
13. Type a title for the field in **Field Name** area and click outside the field  
    
14. Repeat these steps until you create all the desired **Digital Signature** fields
15. On the **File** menu, point to **Save As Other**, select **Reader Extended PDF**, then click **Enable More Tools (includes form fill in & save)…**NOTE: Some versions of Adobe Acrobat do not require the PDF to be saved as a Reader Extended PDF.
16. The **Enable Usage Rights in Adobe Acrobat Reader** pop up window displays  
    
17. Click the **Save Now** button to save the form
18. Navigate to a folder and click the **Save** button
19. Close Adobe Acrobat Pro DC

### Digitally Sign a PDF Artifact Distributed Through E-Mail Using Adobe Acrobat Reader DC

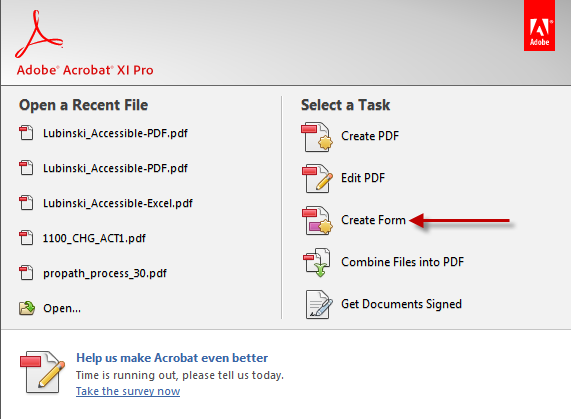
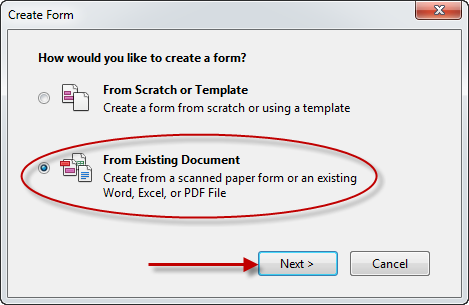
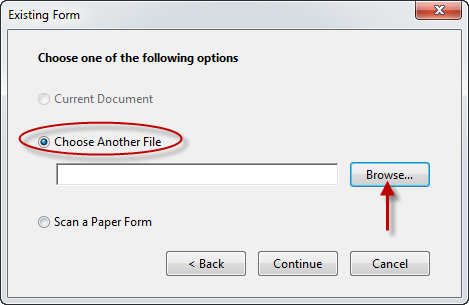
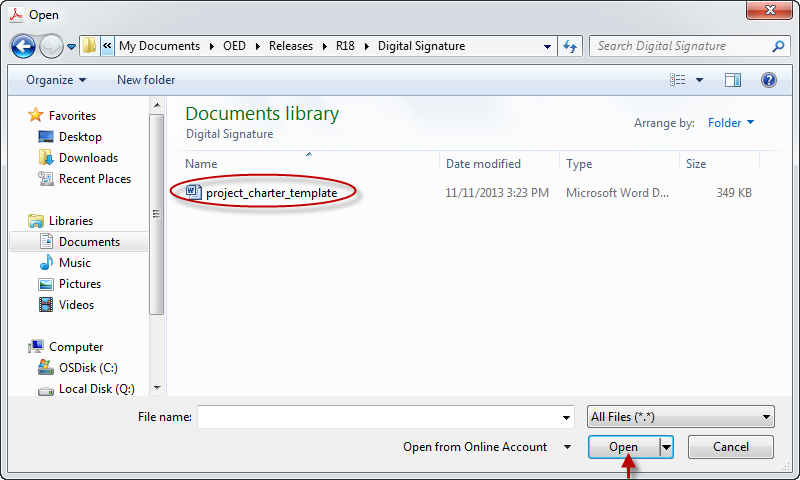
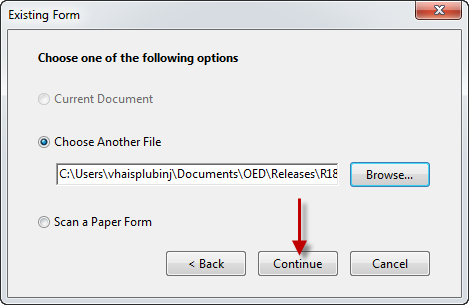
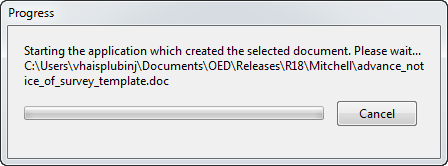
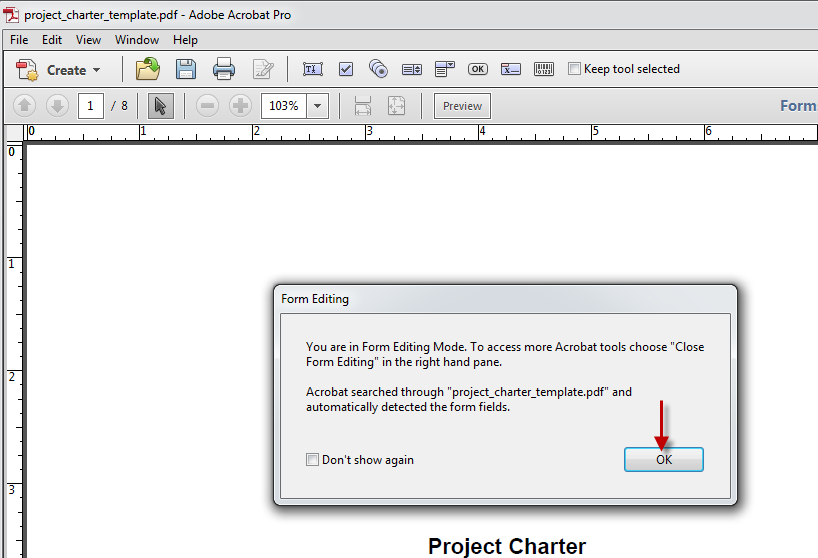
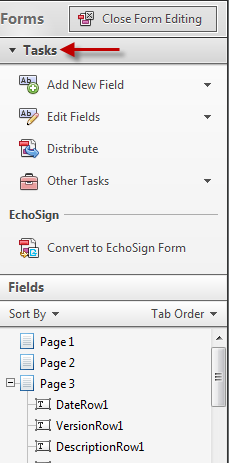
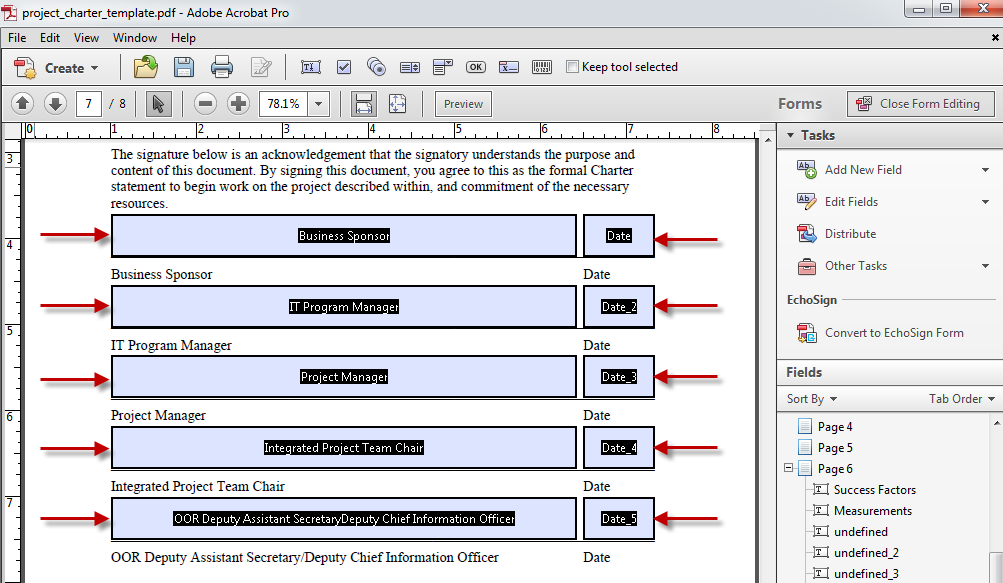
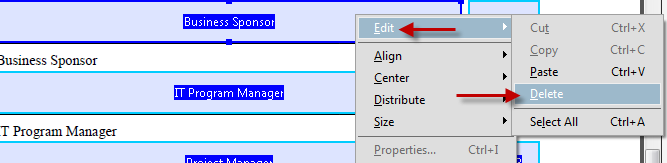
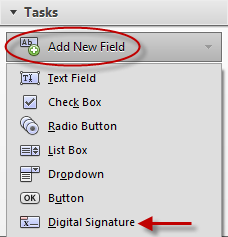
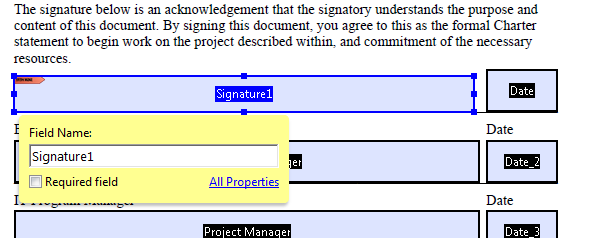
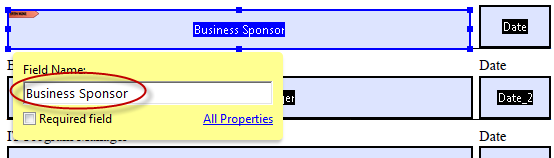
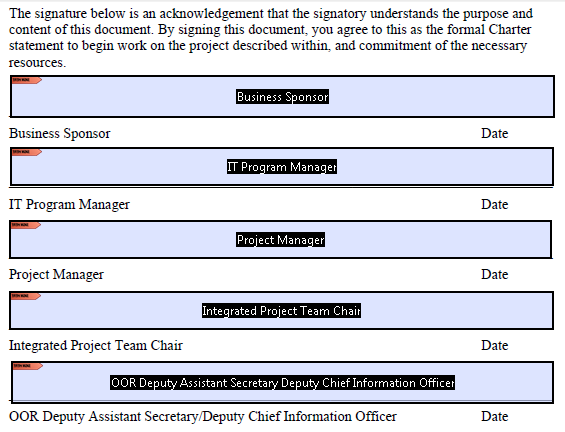
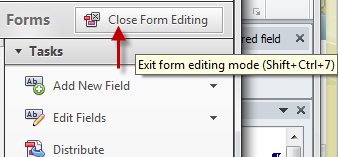
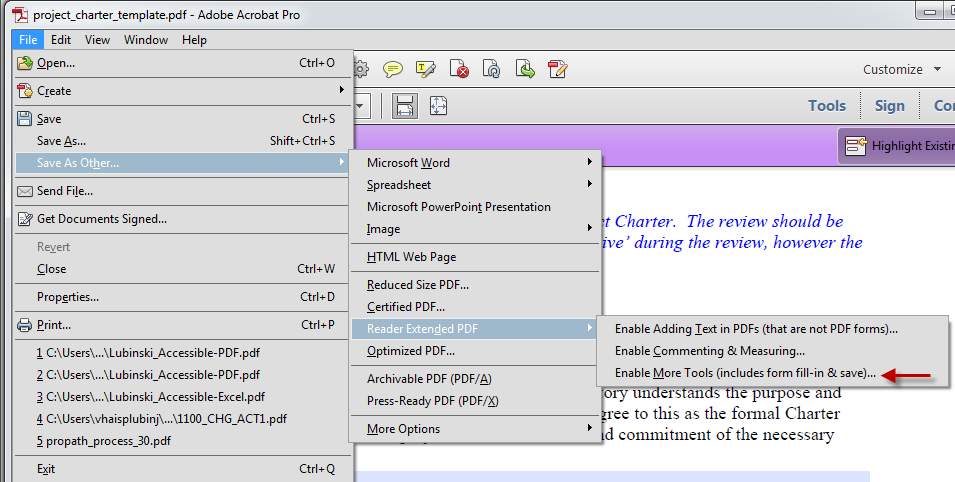
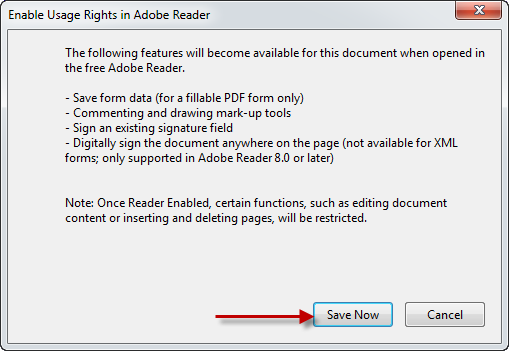
1. Display the form
2. Select the **Enable All Features** button in the **Protected View pop-up window** if it displays  
   Enable All Features button highlightec
3. Place your cursor in the desired field to select it
4. Click to digitally display the **Sign with a Digital ID** dialog box  
   
5. Select the appropriate Digital ID from the list with the radio button  
    
6. Verify that the selected certificate has not expired  
    Expiration date highlighted for the Digital ID
7. Click the **Continue** button in the **Sign with a Digital ID** window  
    
8. Click the **Sign** button  
    
9. The **Save As** pop up window displays  
   
10. Click the **Save** button
11. A pop up window displays requesting the password or PIN associated to the certificate
12. Enter your PIN and click the **OK** button  
    
13. The digitally signed document displays  
    
14. Save the document and circulate to all those whose signatures are required  
      
    **NOTE**: Whenever a team member displays the document, Adobe verifies the signatures
15. Select the icon for the Signature Panel at the top of the form  
    Signature Panel icon highlighted
16. Select your signature from the **Unsigned Signature Fields** list in the **Signatures** panel  
    
17. Place the cursor in the appropriate signature field
18. The next person signing the documents repeats the steps to sign the artifact

### Digitally Sign a PDF Artifact in a SharePoint Library with Adobe Acrobat Reader DC

1. Navigate to the SharePoint Library containing the form
2. Select the form in the library  
   **NOTE**: Only one person at a time can check out the file for signing. If the file is checked out, wait for the previous signer to finish before attempting to apply your own digital signature.
3. **Check Out** the form
4. Save a copy to your computer
5. Open the form
6. Select the **Enable All Features** button in the **Protected View pop-up window** if it displays  
   Enable All Features button highlightec
7. In Acrobat Reader, navigate to the page in the document where you wish to add the digital signature
8. Select **Tools** from the menu bar
9. Click the **Certificates** icon in the **Forms & Signatures** section 
10. Select the **Digitally Sign** icon in the **Certificates** toolbar 
11. Choose a starting point, click the mouse, and drag to display a rectangle to define the **Digital Signature** field  
    Select the appropriate certificate in the **Sign with a Digital ID** window
12. Select the **Continue** button
13. Select the **Sign** button
14. The **ActivClient** box opens
15. Type your PIN into the field and click **OK** and Adobe Acrobat applies a digital signature certificate from your PIV card to your signature block
16. Save the file to your computer
17. Upload the file to the SharePoint library
18. When Adobe Reader prompts you to check the file back into SharePoint, select **Yes**
19. In the **Check In** box, type **Digitally signed** into the **Version Comments** field
20. Click **OK**
21. Adobe saves the file and uploads it back to the SharePoint document library so that other signers can check out the file to apply their digital signatures

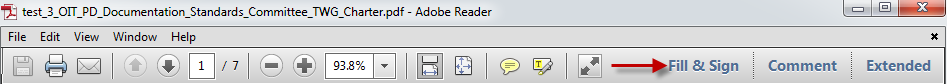
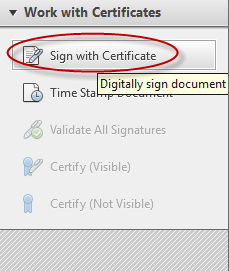
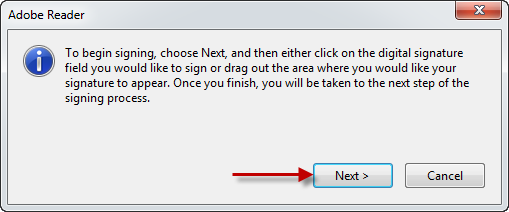
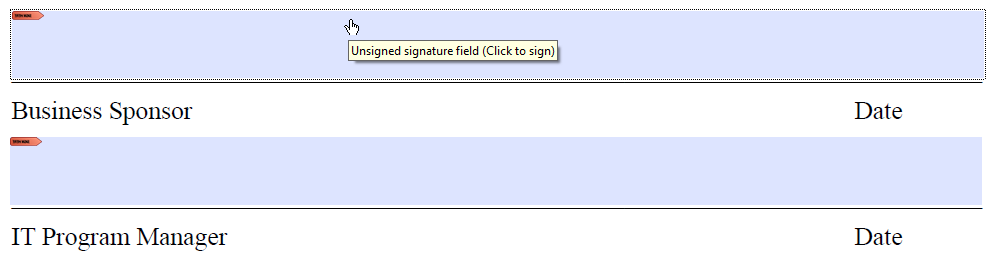
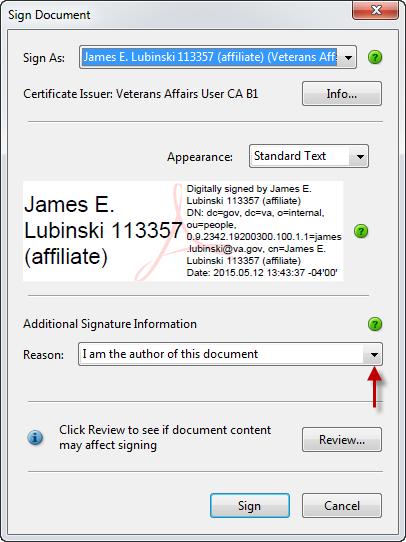
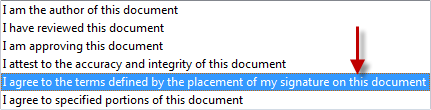
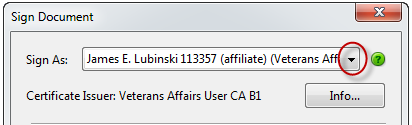
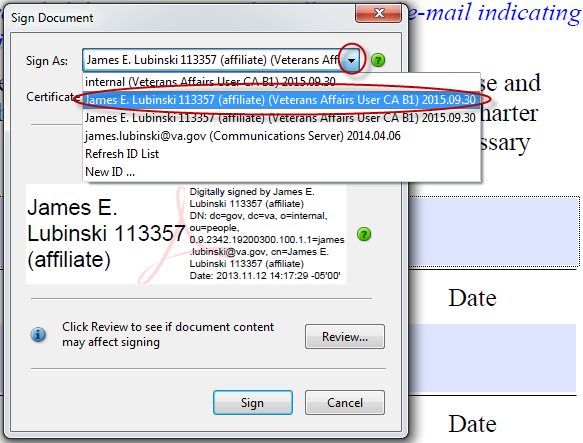
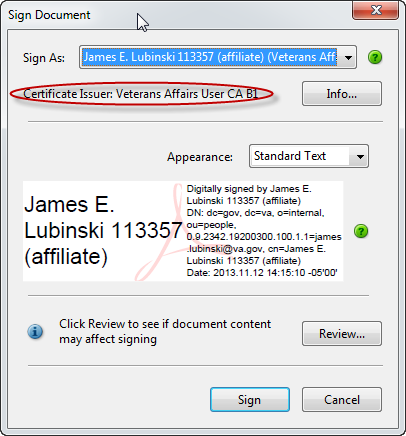
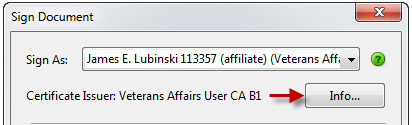
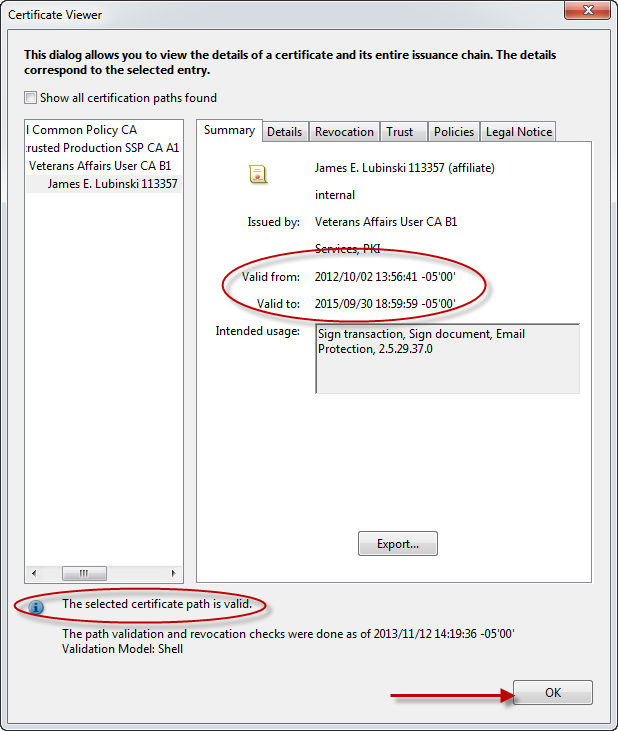
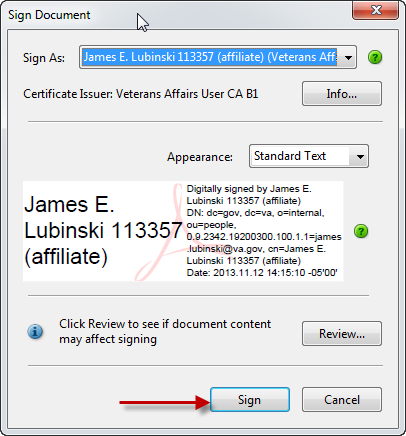
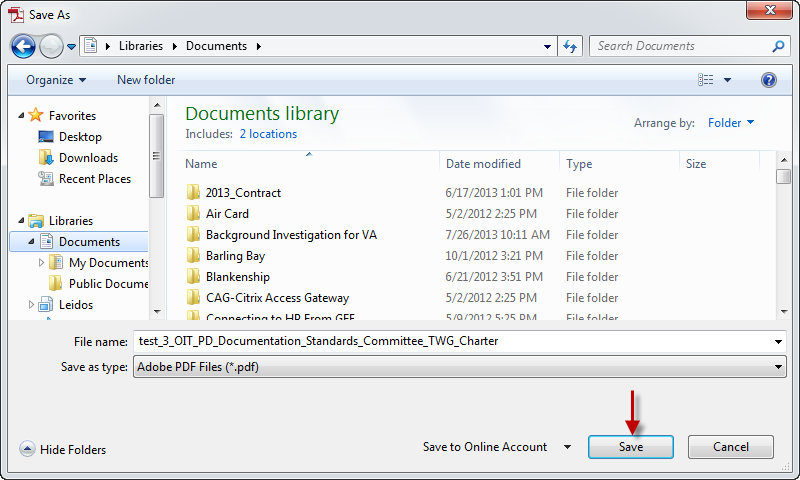
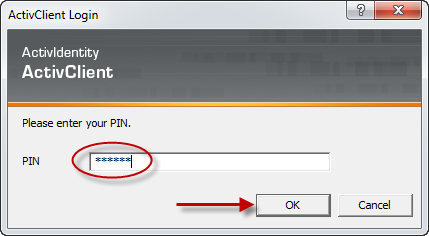
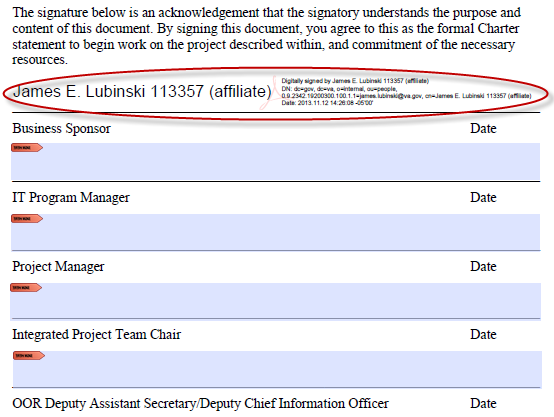
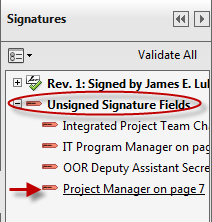
### Create a Form in Adobe Acrobat XI Professional

**NOTE**: Adobe Acrobat Professional is required to create a form that can be digitally signed.

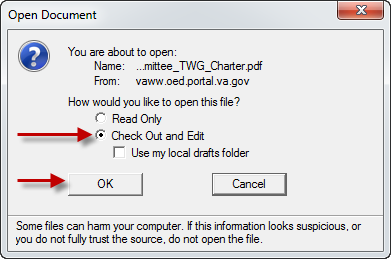
1. Create the document in Word
2. Open Adobe Acrobat Professional
3. Select the **Enable All Features** button in the **Protected View pop-up window** if it displays  
   Enable All Features button highlightec
4. Select **Create Form** from the **Adobe Acrobat XI Pro** menu  
   
5. Select the **From Existing Document** radio button in the **Create Form** pop up window
6. Click the **Next** button  
   
7. Select the **Choose Another File** radio button in the **Existing Form** pop up window and click the **Browse** button  
   
8. Browse to the Word document you wish convert to a form that can be digitally signed, click on it, and then click the **Open** button  
   
9. Click the **Continue** button in the **Existing Form** window  
   
10. A **Progress** pop up window displays  
    
11. Click the **OK** button in the **Form Editing** pop up window that displays with the Word document converted to an Adobe Acrobat file  
    
12. The document opens in **Form Editing** mode, and a **Task** pane opens on the right hand side of the page  
    
13. Adobe Acrobat creates undefined fields throughout the artifact  
    
14. Right click an undefined field and choose **Select All** from the drop down menu  
    
15. Right-click the field again, point to the **Edit** menu, and click **Delete**
16. Click the **Add New Field** icon in the **Tasks** pane and select **Digital Signature** from the list  
    
17. Choose a starting point, click the mouse, and drag to display a rectangle to define the **Digital Signature** field  
    
18. Type a title for the field in **Field Name** area and press your **Enter** key on the keyboard  
    
19. Repeat these steps until you create all the desired **Digital Signature** fields  
    
20. Click the **Close Form Editing** button  
    
21. On the **File** menu, point to **Save As Other**, select **Reader Extended PDF**, then click **Enable More Tools (includes form fill in & save)…**
22. The **Enable Usage Rights in Adobe Acrobat Pro** pop up window displays  
    
23. Click the **Save Now** button to save the form
24. Close Adobe Acrobat Pro

### Digitally Sign a PDF Artifact Distributed Through E-Mail with Adobe Acrobat Reader XI

**NOTE**: Adobe Acrobat Reader is required to digitally sign a form.

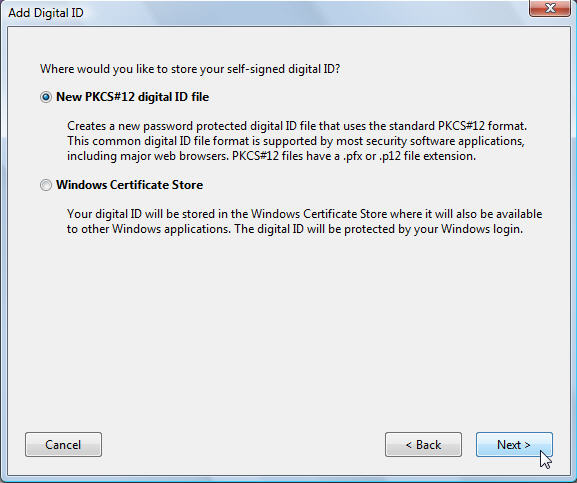
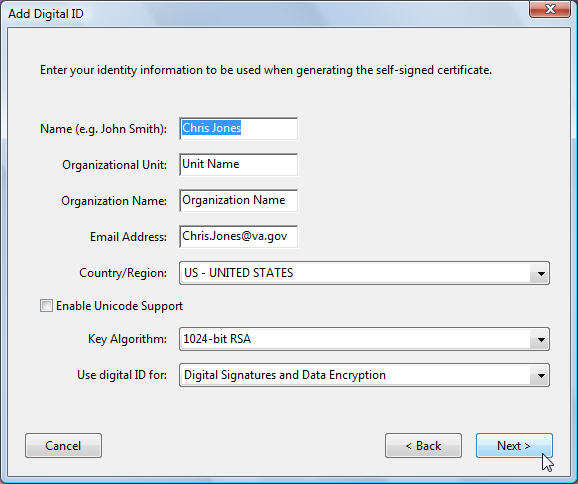
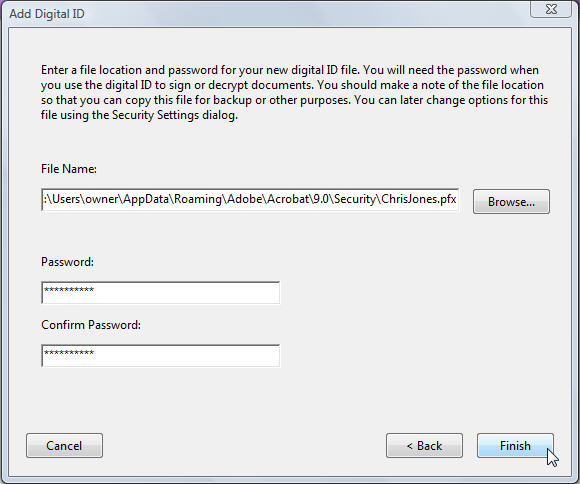
1. Display the form
2. Select the **Enable All Features** button in the **Protected View pop-up window** if it displays  
   Enable All Features button highlightec
3. Click the **Fill & Sign** button in the toolbar  
   
4. Select **Sign with Certificate** in the **Work with Certificates** pane  
   
5. Click the **Next** button in the **Adobe Reader** pop up window  
   
6. Place your cursor in the desired field to select it  
   **NOTE**: The first time you attempt to electronically sign a document, you will be prompted to create your digital signature. See the **Error! Reference source not found**. section for instructions  
   
7. Click to digitally display the **Sign Document** dialog box
8. Click the down arrow beside the **Reason** field  
   
9. Select the appropriate reason from the drop down list  
   
10. Click the down arrow in the **Sign As** field if more than one signature resides on this device  
    
11. Select the appropriate certificate from the list  
    
12. Verify that the selected signature is valid  
    
13. Click the **Info…** button in the **Sign Document** window to display the details of the signature and to verify that the certificate has not expired  
    
14. Click the **OK** button in the **Certificate Viewer** window  
    
15. Click the **Sign** button  
    
16. The **Save As** pop up window displays  
    
17. Click the **Save** button  
    **NOTE**: The PIV card is the preferred method for digitally signing and artifact.
18. A pop up window displays requesting the password or PIN associated to the certificate
19. Enter your PIN (if using a PIV card) or password, if applicable, and click the **OK** button  
    
20. The digitally signed document displays  
    
21. Circulate the document to all those whose signatures are required  
    **NOTE**: Whenever a team member displays the document, Adobe verifies the signatures
22. Select the icon for the **Signature Panel** at the top of the form  
    Signature Panel icon highlighted
23. Select your signature from the **Unsigned Signature Fields** list in the **Signatures** panel  
    
24. Place the cursor in the appropriate signature field
25. The next person signing the documents repeats the steps to sign the artifact

### Digitally Sign a PDF Artifact in a SharePoint Library with Adobe Acrobat Reader XI

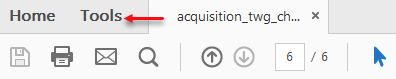
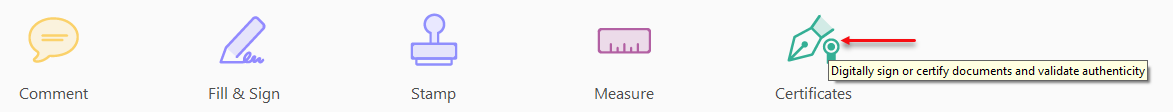
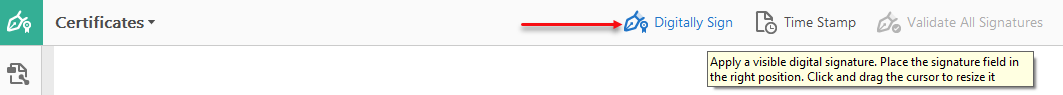
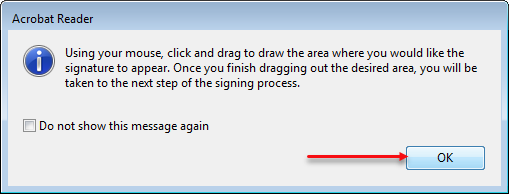
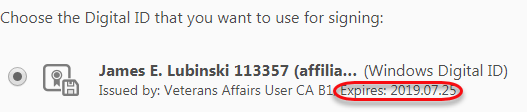
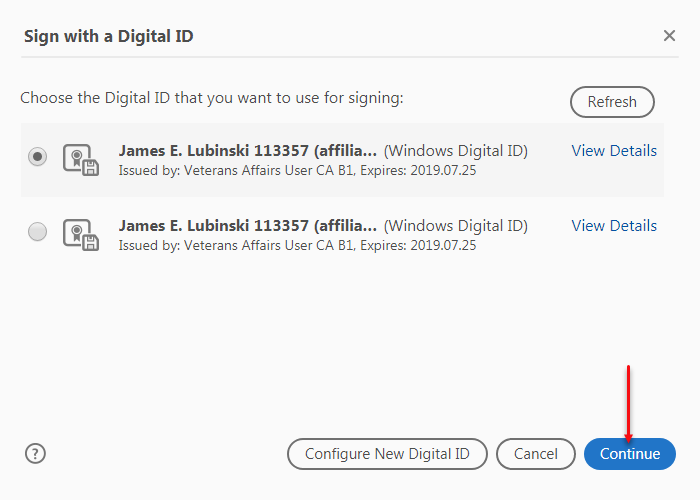
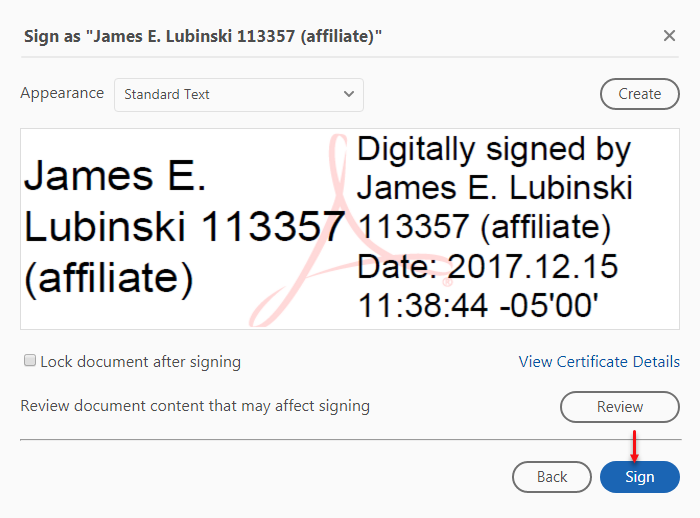
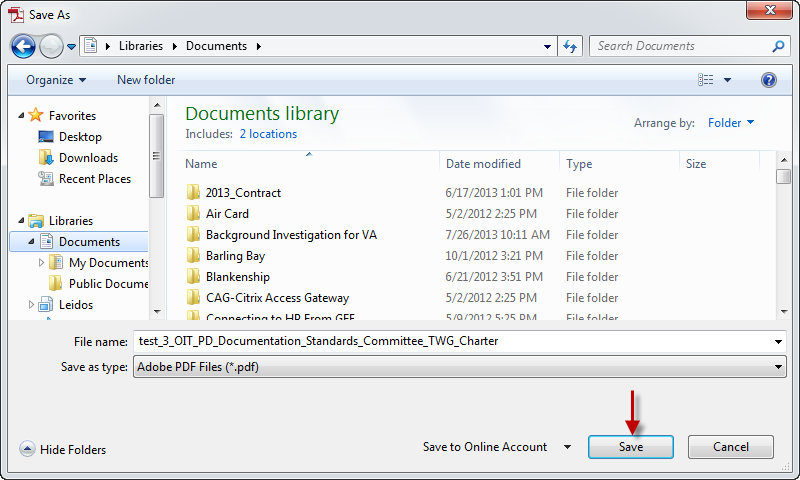
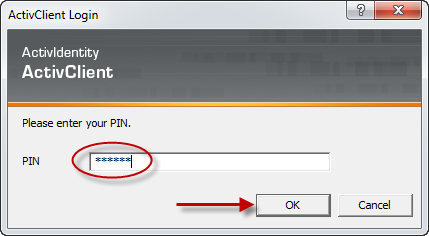
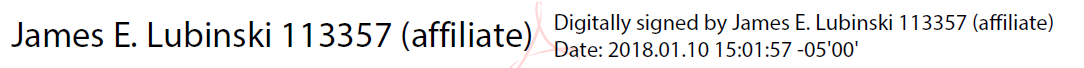
1. Navigate to the SharePoint Library containing the form
2. Select the form in the library  
   **NOTE**: Only one person at a time can check out the file for signing. If the file is checked out, wait for the previous signer to finish before attempting to apply your own digital signature
3. From the **Open Document** window, select the **Check Out and Edit** option then click **OK** **NOTE**: Do not select the **Use my local drafts** option.
4. SharePoint checks out the file to you and opens the file in Adobe Acrobat Reader
5. Select the **Enable All Features** button in the **Protected View pop-up window** if it displays  
   Enable All Features button highlightec
6. From Acrobat Reader, navigate to the document’s signature page, right-click on the arrow above your signature block, and select the **Sign Document** option
7. In the **Sign Document** box, click the **Sign** button
8. The **ActivClien**t box opens
9. Type your PIN into the field and click **OK** and Adobe Acrobat applies a digital signature certificate from your PIV card to your signature block  
     
   **Tip**: The PIN for the ActivClient is the same PIN with which you log into the VA VPN daily.
10. Close the file
11. When Adobe Reader prompts you to check the file back into SharePoint, select **Yes**
12. In the **Check In** box, type **Digitally signed** into the **Version Comments** field
13. Click **OK**
14. Adobe saves the file and uploads it back to the SharePoint document library so that other signers can check out the file to apply their digital signatures

### Create a Digital Signature

The first time you attempt to electronically sign a PDF file using Acrobat Reader, you will be prompted to set up your digital signature using the following steps:

1. Click the appropriate signature field
2. The **Add Digital ID** dialog box displays  
   
3. Click the **New PKCS#12 digital ID** file radio button
4. Click **Next**
5. Enter your personal information in the **Add Digital ID** pop up window  
     
     
   **NOTE**: Enter the name you want to appear in the Signatures tab and in any signature field that you complete and enter a corporate or organization name (if necessary) and an email address. The example shows Chris Jones for the name, Unit Name for the Organizational Unit, Organization Name for the organization name, and ChrisJones@va.gov for the email address. Ensure that you select a country/region. This example shows the default US - United States.
6. Select the default **1024-bit RSA** in the **Key Algorithm** field
7. Select **Digital Signatures and Data Encryption** from the **Use digital ID for** drop-down list
8. Click **Next**
9. A new **Add Digital ID** pop up window displays
10. Accept the default file location or browse to your preferred location to save and safeguard your information
11. Enter a password in the **Password** and **Confirm Password** fields   
      
    **Note**: Remember that the password is case-sensitive. Be sure to make a note of your password and keep it in a safe place. You cannot use or access your digital ID without this password. Your password cannot contain double quotation marks or any of the following characters: ! @ # $ % ^ & \* , | \ ; < > \_  
    
12. Click **Finish**
13. Verify the location and file name in the **Save As** dialog box
14. Click **Save**

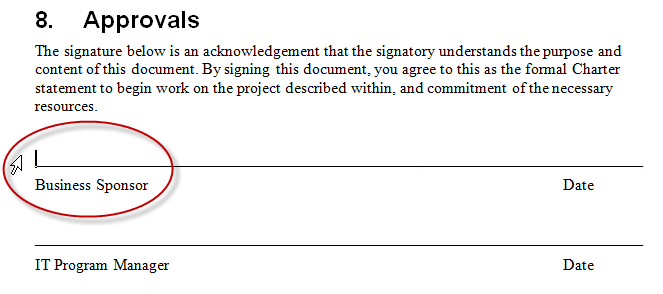
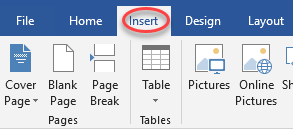
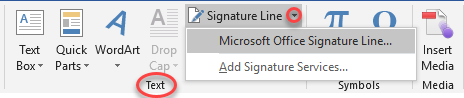
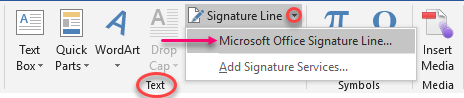
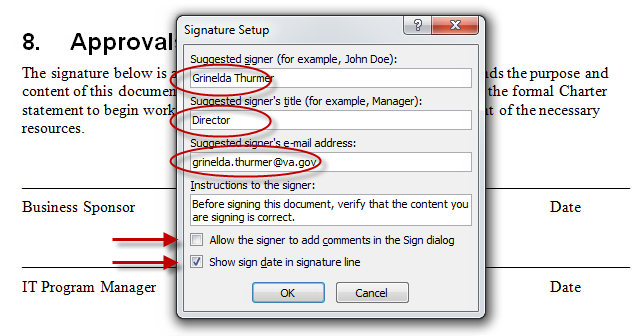
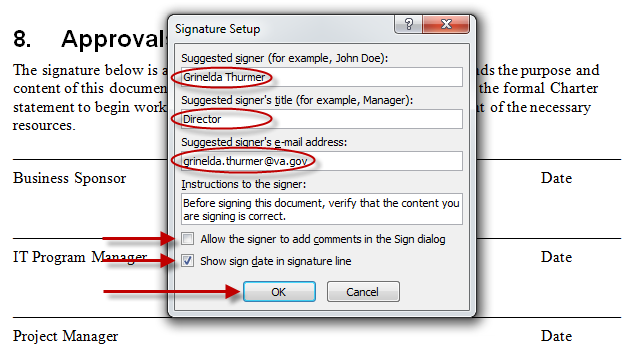
### Add a New Digital Signature Field to a PDF in Acrobat Reader DC

1. Display the form
2. Navigate to the location in the document for the new signature
3. Select **Tools** from the menu bar  
   
4. Select **Certificates** from the choices  
   
5. Select **Digitally Sign** in the ribbon  
   
6. Select the **OK** button in the **Acrobat Reader** instructional window  
   
7. Click and drag to draw the area for the signature  
   
8. Release the mouse to display the **Sign with a Digital ID** pop up window
9. Select a digital ID from the choices and verify that the selected certificate has not expired  
   
10. Click the **Continue** button in the **Sign with a Digital ID** window  
    
11. Click the **Sign** button  
    
12. The **Save As** pop up window displays  
    
13. Click the **Save** button
14. A pop up window displays requesting the password or PIN associated to the certificate
15. Enter your PIN and click the **OK** button  
    
16. The digitally signed document displays  
    
17. Save the document and circulate to all those whose signatures are required  
      
    **NOTE**: Whenever a team member displays the document, Adobe verifies the signatures

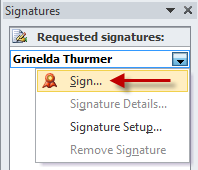
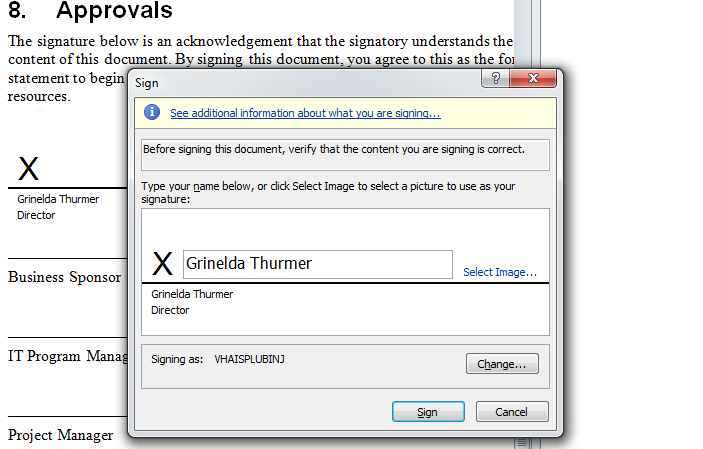
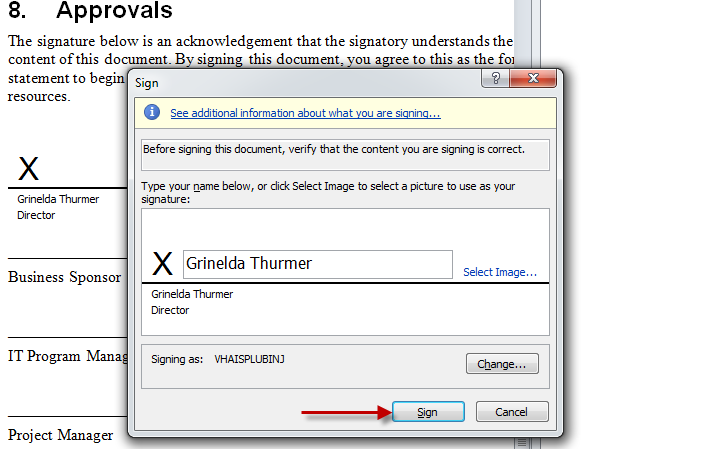
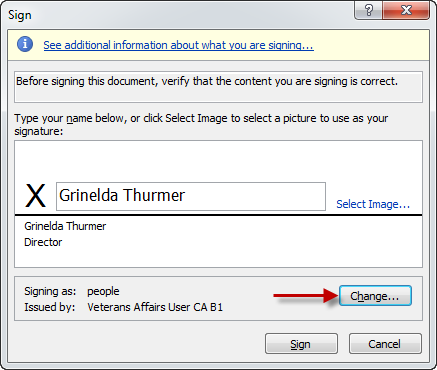
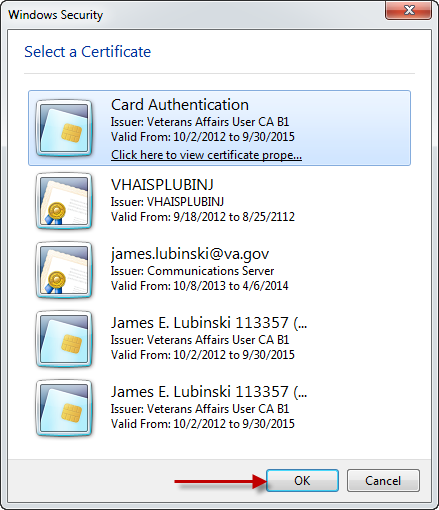
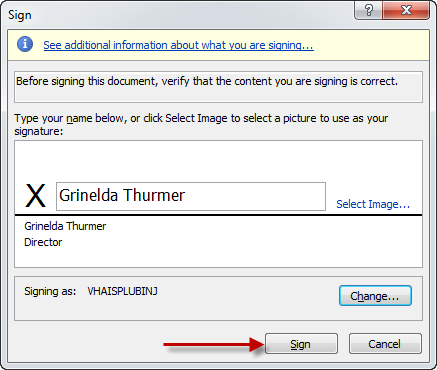
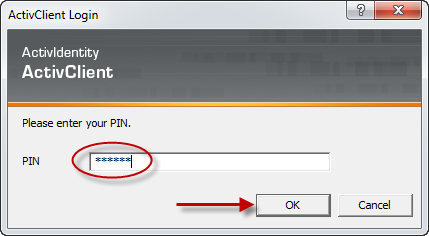
## Apply Digital Signatures to a Microsoft Word Document

Microsoft Word also allows the convenient creation of documents that can be digitally signed. Using MS Word to create and manage documents with digital signatures has the advantage of eliminating additional licensing costs.

### Create a Form

1. Create a Word document
2. Place the cursor at the desired location for the digital signature  
   
3. Select the **Insert** tab  
   
4. Click the drop down arrow beside the **Signature Line** field in the **Text** tab  
   
5. Select **Microsoft Office Signature Line…** from the choices  
   
6. Type the desired information in the fields in the **Signature Setup** pop up window and click to select or deselect options  
   
7. Click the **OK** button  
   
8. Repeat these steps for all signature fields you wish to create
9. Save the document

### Distribute and Digitally Sign the Word Document through SharePoint

1. Upload the document to SharePoint
2. The signer then opens the document in read-only mode from SharePoint READ-ONLY highlighted  
     
   **NOTE**: Open the document in read-only mode. Do not check out the document or open it for editing.
3. Click the **View Signatures** button  
   View Signatures and READ-ONLY highlighted
4. Click the drop down box beside your name from the **Requested signatures** list in the **Signatures** panel  
   
5. Click the **Sign** icon  
   
6. Type your name in the signature field or, if you have a stored picture file of your signature, click **Select Image…** in the **Sign** window  
   
7. Click the **Sign** button  
   
8. Click the **Change** button to select the authorized PKI (Public Key Infrastructure) signature in the **Sign** window  
   
9. Select the authorized signature from the list in the **Select Certificate** window and click the **OK** button  
   
10. Click the **Sign** button  
    
11. Enter your PIN and click the **OK** button  
    
12. Click **OK** to exit the **Select Certificate** window  
    
13. The digitally signed artifact displays
14. Close the document
15. The next person signing the documents repeats the exact steps   
    **NOTE**: When everyone has signed the document from the common location it can be opened and saved to another location, but any edits to the document will invalidate all the signatures. Any changes to the document would require the approval of all the signees.