# Encrypting PDF documents using Adobe Acrobat Professional
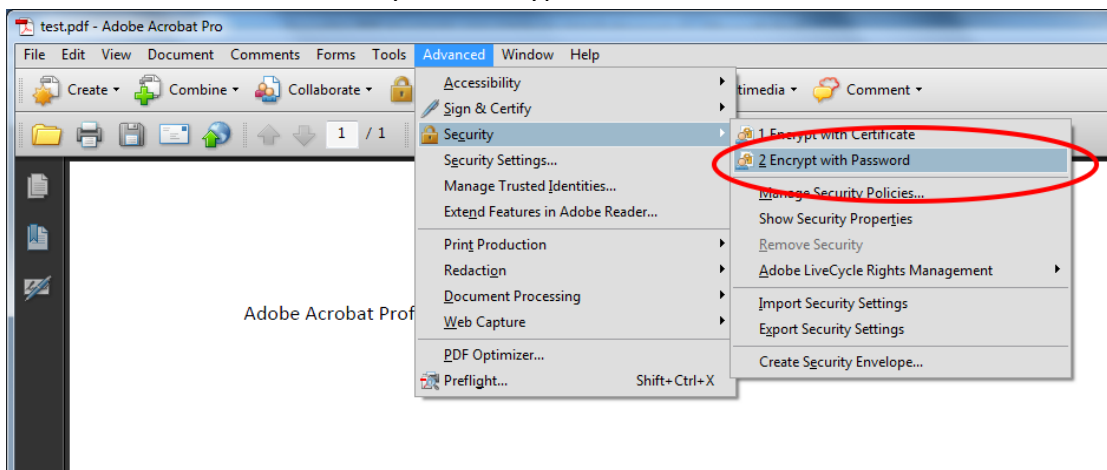
A. Introduction

Users are recommended to encrypt sensitive data especially when they are stored in removable devices, stored in mobile computers, or transferred through Email. Acrobat 8 supports 128-bit AES and Acrobat 9 supports 256-bit AES strong encryption as their standard functions.   When used with a strong password, data can be protected from leakage and information from exposure risks.
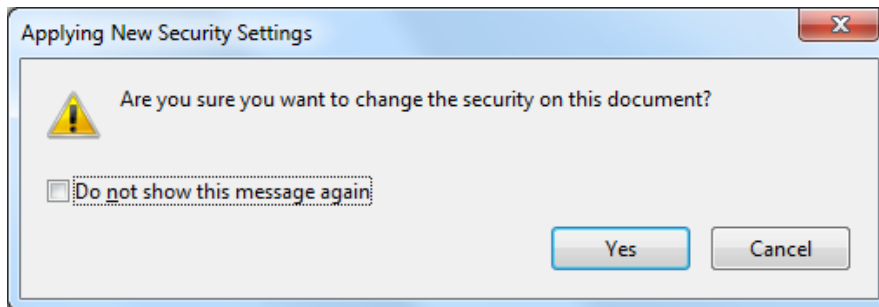
B. Encrypting PDF Document
   i. Open a PDF document
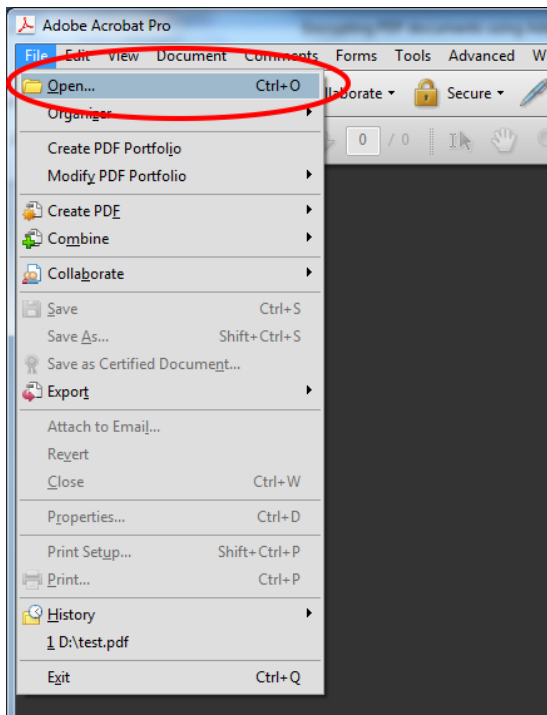
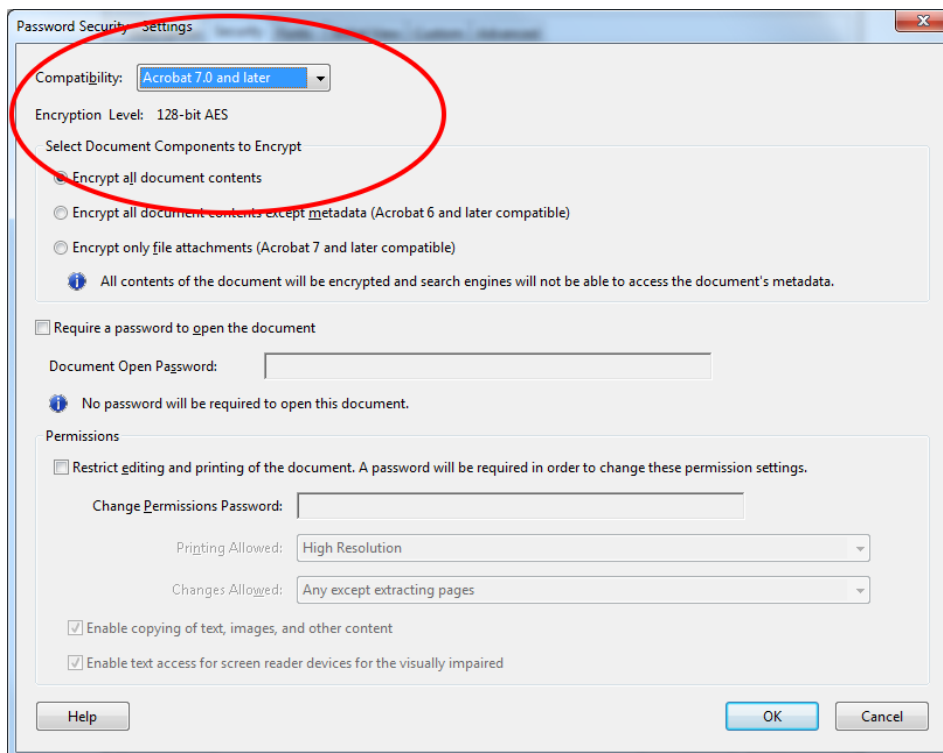   ii. Select "Advanced" -> "Security" -> "Encrypt with Password"

iii. Click "Yes" to continue

Applying New Security Settings

⚠ Are you sure you want to change the security on this document?

☐ Do not show this message again

[Yes] [Cancel]

iv. Select the Compatibility (Encryption Level)
Acrobat 9.0 and later versions encrypt the document using the AES encryption algorithm with a 256-bit key size. Using an earlier version of Acrobat cannot open a PDF document with a higher compatibility setting.
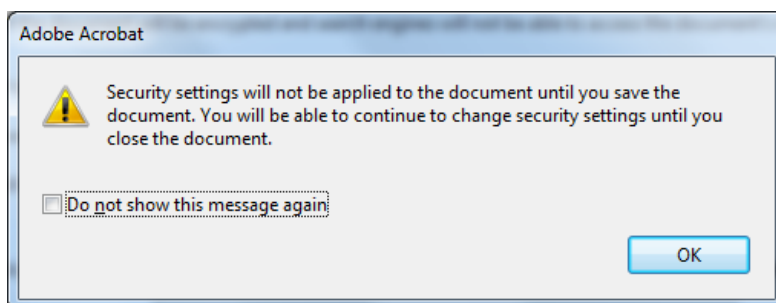
Password Security – Settings

Compatibility: [Acrobat 7.0 and later ▼]

Encryption Level: 128-bit AES

Select Document Components to Encrypt

◉ Encrypt all document contents

○ Encrypt all document contents except metadata (Acrobat 6 and later compatible)

○ Encrypt only file attachments (Acrobat 7 and later compatible)

ⓘ All contents of the document will be encrypted and search engines will not be able to access the document's metadata.

☐ Require a password to open the document

Document Open Password: [   ]

ⓘ No password will be required to open this document.

Permissions

☐ Restrict editing and printing of the document. A password will be required in order to change these permission settings.

Change Permissions Password: [   ]

Printing Allowed: [High Resolution ▼]

Changes Allowed: [Any except extracting pages ▼]

☑ Enable copying of text, images, and other content

☑ Enable text access for screen reader devices for the visually impaired

[Help]   [OK] [Cancel]

v. Tick the check box "Require a password to open the document" and enter the password, then click "OK"
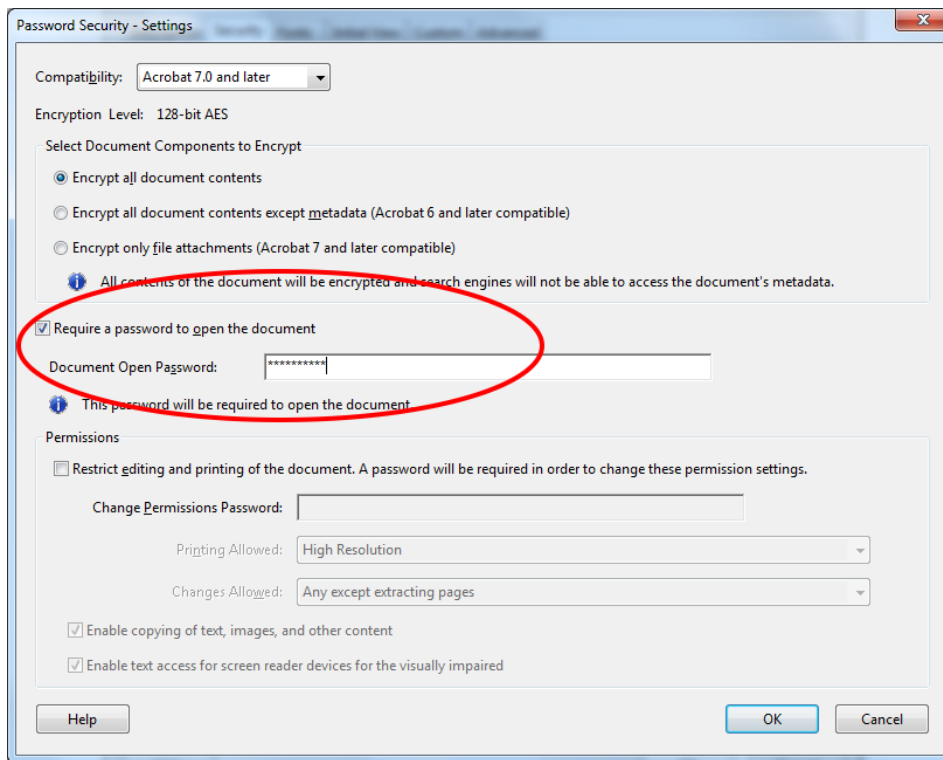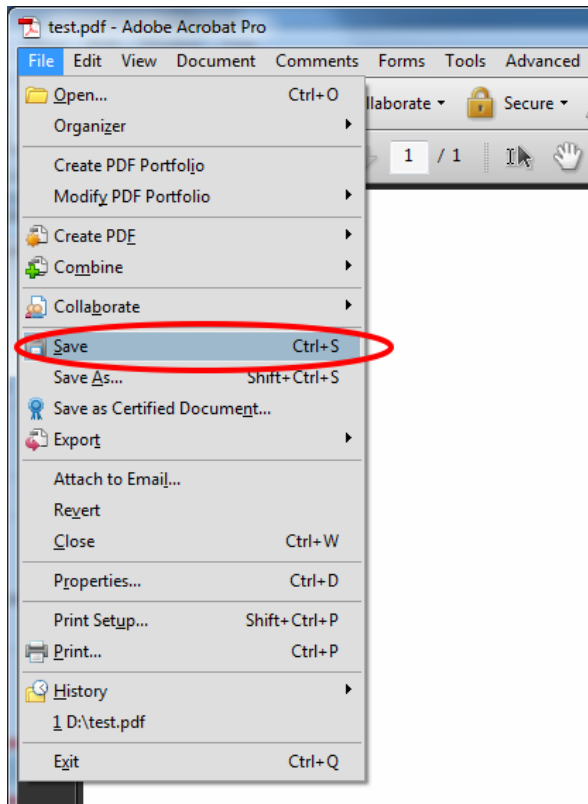

vi. Enter the password again to confirm the Document Open Password
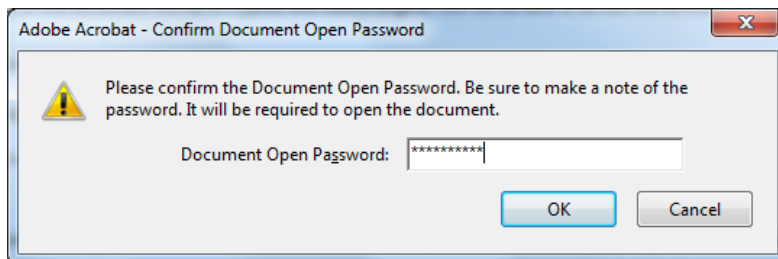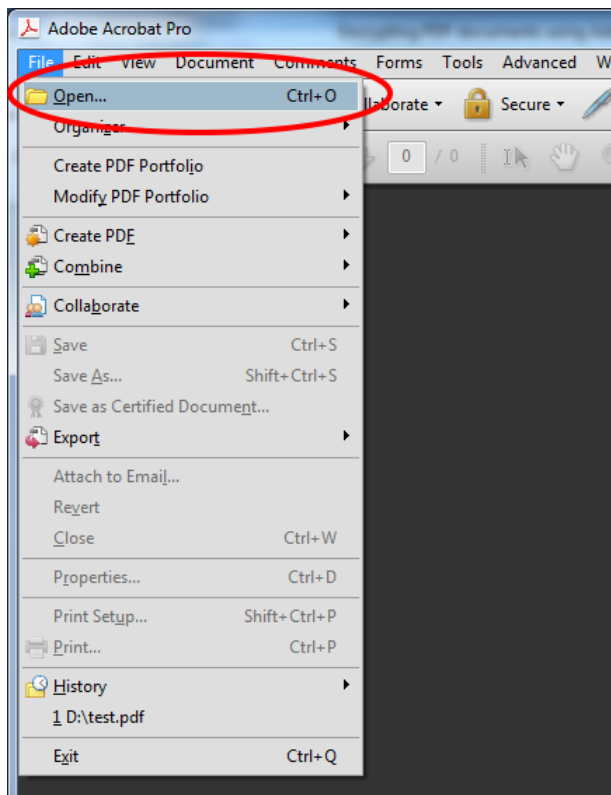

vii. Click "OK"

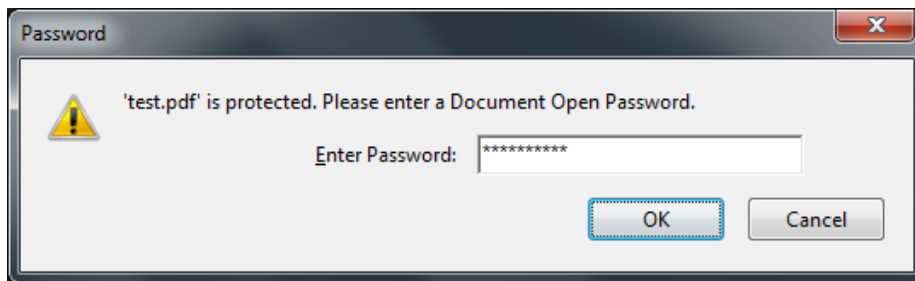viii. Save the PDF document to apply the security settings
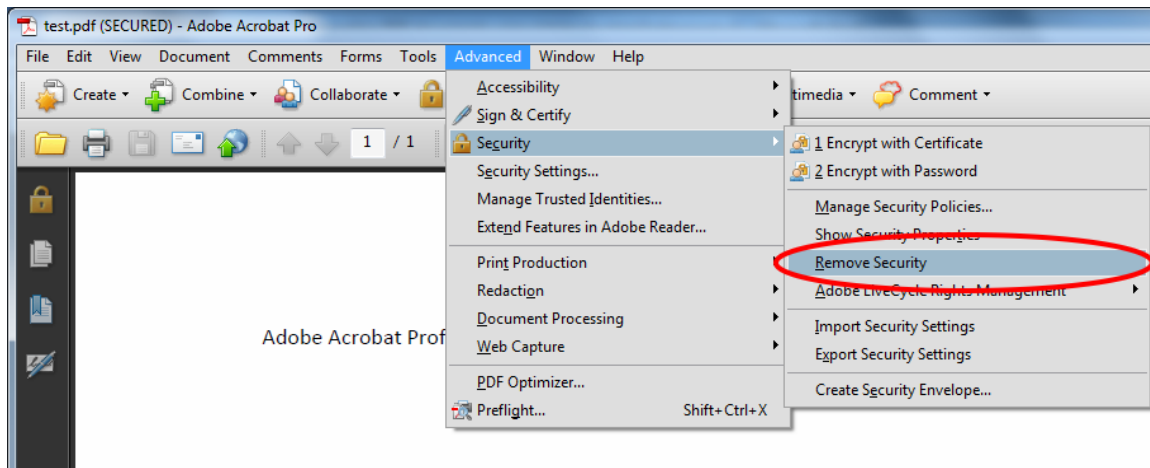

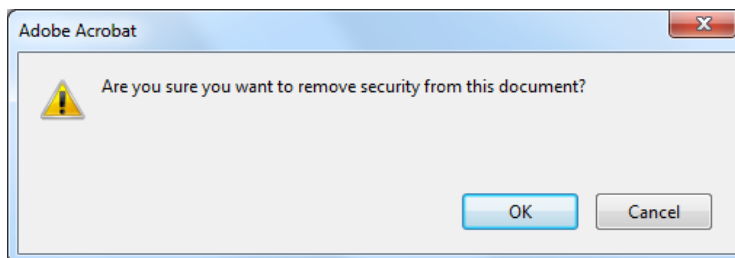## C. Removing Password Security

i. Open an encrypted PDF document

ii.   Enter the password and click "OK" to open the encrypted PDF document

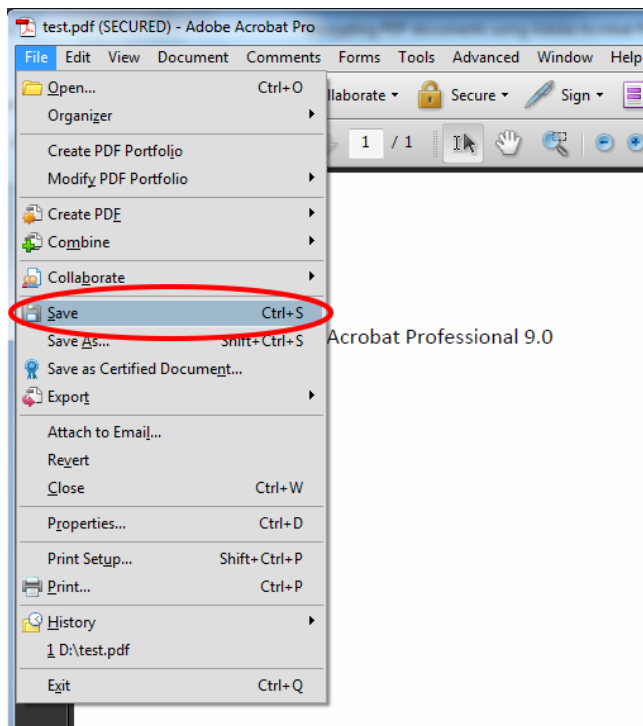iii.   Select "Advanced" -> "Security" -> "Remove Security"

iv.   Click "OK"

v.   Save the PDF document to apply the security settings

D. References

Please refer to the following resources for more information:

1. Advanced Encryption Standard (AES) from Wikipedia
    http://en.wikipedia.org/wiki/Advanced_Encryption_Standard

2. Acrobat 9 and password encryption from Adobe
    http://blogs.adobe.com/security/2008/12/acrobat_9_and_password_encrypt.html

3. FIPS PUB 140-2 Security Requirements for Cryptographic Modules from NIST
    http://csrc.nist.gov/publications/fips/fips140-2/fips1402.pdf