

(Appendix)

1. Introduction

PDF is an electronic format for the display, transmission, and storage of electronic information<sup>1</sup>. For that reason, when PDFs are obtained for audit evidence, the original information from which the PDF was converted shall be stored as the source of the audit evidence. Here, for reference purposes, we provide examples of the risks associated with PDF conversion, examples of how the auditor might request PDF conversion from the company, and methods for checking information in the properties of a PDF.

2. Example of risks associated with obtaining evidence that has been converted to PDF format

Risks associated with authenticating PDF documents exist in cases where there is a difference, arising either intentionally or from negligence, between the original information from which the PDF was converted and the PDF itself. The auditor shall keep in mind the following as the possible causes of the occurrence of this risk:

- (1) Cutting and pasting of a paper copy of the original over the documents, touching up of the original, and impressing of seals, etc. before conversion to PDF.
- (2) The omission of pages or their partial substitution, either intentionally or through negligence, during conversion to PDF.
- (3) Use of PDF editing functions to falsify figures or text within the document after conversion to PDF.

In cases where the original form is an electronic file created by word processing or spreadsheet software, etc. before conversion to PDF, and falsification occurs in that electronic file, this cannot be said to be a risk originating in the conversion to PDF, so it is not included in the above causes.

3. Example of company performing conversion to PDF at the request of the auditor

When the auditor requests PDF conversion from the company, one possibility is to ask the company to utilize the self-signing function of Adobe Acrobat<sup>2</sup>, which is PDF creation and editing software from Adobe Inc.<sup>3</sup>, to attach the electronic signature of the PDF's creator.

By using the Adobe Acrobat self-signing function, the auditor can confirm the creator and the creation date of the obtained PDF. In addition, if the PDF is edited after self-signing, the

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<sup>1</sup>In general, for electronic contracts in PDF format that are generated by an electronic contract service, the contents of the contract are created within the electronic contract service system and a PDF is used to display the result.

<sup>2</sup>Because PDF is an electronic file format developed in the early 1990s by Adobe Inc., as our representative example of PDF conversion we describe an approach that uses PDF creation and editing tools from Adobe Inc.

<sup>3</sup> In this Appendix of "Considerations", it is assumed that the Adobe Inc. PDF creation and editing tools used are Adobe Acrobat Pro 2017 and Adobe Acrobat reader DC.

fact that it has been edited can be detected in the PDF.

Unlike an electronic signature and timestamp<sup>4</sup> with a digital certificate issued by an electronic certification authority, the self-signing approach cannot guarantee that the person in question signed the PDF, or that the time of creation is objectively correct, but it can be used to detect falsification. In addition, in order to evaluate the reliability of the PDF, as well as obtaining the PDF, the auditor can also check whether the person responsible at the company who was requested to submit documents in PDF format and the self-signer are the same person, or ask questions about the relationship between them, and check the time at which the documents were submitted and the time of the self-signing of the PDF for consistency. However, as stated in Paragraph A49 of Auditing Standards Committee Statement 200, “Overall Objectives of the Independent Auditor”, auditors should bear in mind that fraud may involve sophisticated and carefully organized schemes designed to conceal it.

(Procedure for self-signing)

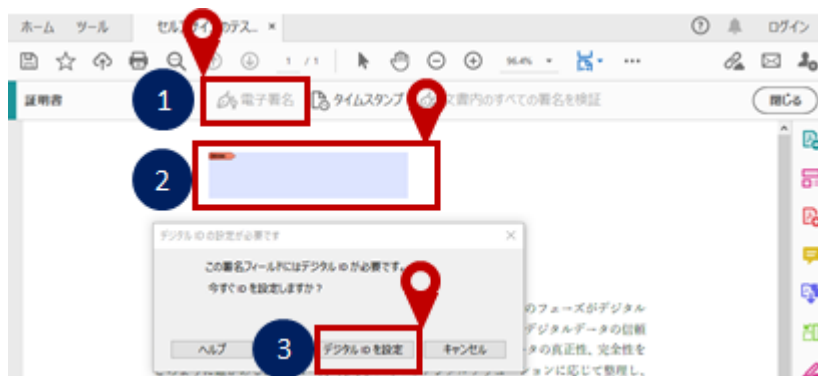
(1) In Adobe Acrobat<sup>5</sup>, Select “Certificates” from “Tools”



(2) From the “Certificates” ribbon, click (i) “Digitally Sign” and (ii) set the area where you wish the signature to appear. In the pop-up that appears, click (iii) “Set Digital ID”.

<sup>4</sup>For details of timestamps and the mechanism used by electronic certification authorities, refer to IT Committee Research Report No. 50 “Dealing with Scanner Storage Systems and the Audit Considerations”, Appendix 1 “Commentary on Security Technology”.

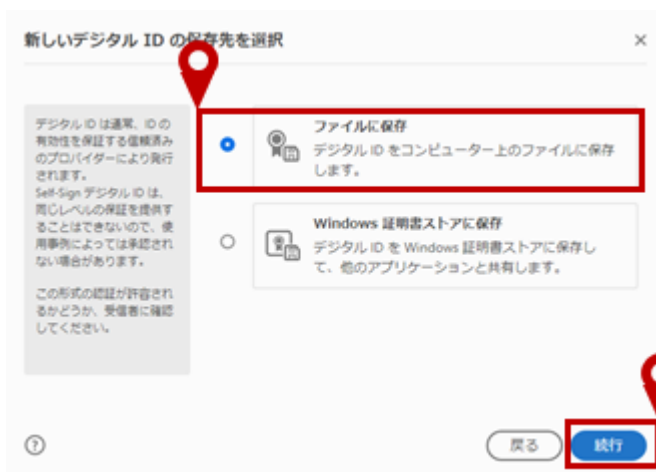
<sup>5</sup>Acrobat Reader also has a self-signing function, which can be used in the same way.



(3) In the “Configure a Digital ID for signing” pop-up, select “Create a new Digital ID” then click “Continue”.



In the “Select the destination of the new Digital ID” pop-up, select “Save to File” and click “Continue”.



In the “Create a self-signed Digital ID” pop-up, enter your name, organizational unit, organization name, and email address, then click “Continue”.

Self-Sign デジタル ID の作成

Self-Sign デジタル ID の作成に使用する ID 情報を入力します。

個人によって自己署名されたデジタル ID は、ID 情報が有効であるという保証にはなりません。そのため、特定のユースケースでは承認されない場合があります。

名前	〇〇 △△
部署	×××部
会社名	aaa株式会社
電子メールアドレス	△△〇〇@aaa.com
国 / 地域	JP - 日本
鍵アルゴリズム	2048-bit RSA
デジタル ID の使用対象	電子署名

戻る 続行

In the “Save the self-signed Digital ID to a file” pop-up, enter a password, then click “Save”.

Note that the password is used when utilizing the created signature to sign other PDFs, and is not shared with the recipient of the PDF.

Self-Sign デジタル ID をファイルに保存

デジタル ID ファイルは次の場所に保存されます：

C:\User\...\data\Roaming\Adobe\Acrobat\DC

デジタル ID の秘密鍵を保護する (パスワードを追加します)。デジタル ID を使って署名する際に、このパスワードが必要になります。

デジタル ID ファイルを既知の場所に保存して、コピーまたはバックアップできるようにします。

次のパスワードでデジタル ID を保護する：

パスワードを再入力：

戻る 保存

(7) In the “Sign with a Digital ID” pop-up, select the Digital ID used to sign the document, then click “Continue”.



(8) In the “Sign as” pop-up, select the “Lock document after signing” checkbox, enter the password previously set, and click the Sign” button.

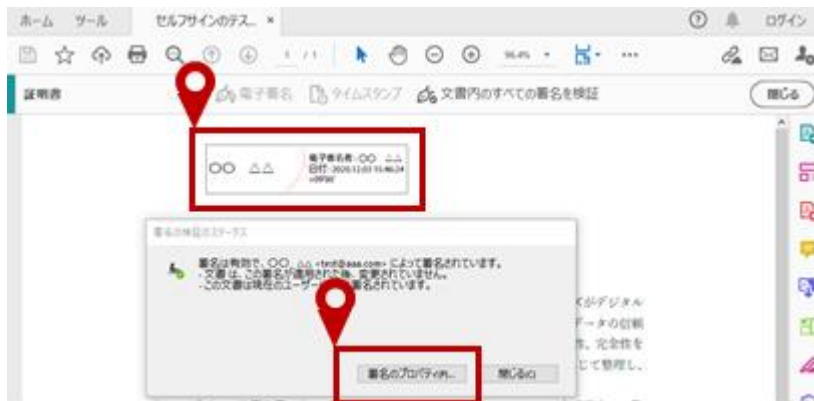


(9) When the file is finally saved, the self-signed signature will appear in the PDF.



(Procedure for confirming self-signed signature)

- (1) Click on the signature in the PDF and the “Signature Validation Status” pop-up will appear. Click on “Signature Properties...”.



- (2) In the “Signature Properties” pop-up, click on “Show Signer’s Certificate”.



- (3) In the “Certificate Viewer” pop-up, the issuer, time of issue, and email address of the issuer can be confirmed.



(4) When somebody other than the person who self-signed opens the PDF, a warning will appear (“Signature validity is unknown”) in “Signature Properties”. Self-signing is a type of electronic signature in which an electronic certificate is not issued, so this is simply a message stating that the signature cannot be validated. Even in such cases, the issuer, time of issue, and email address of the issuer can be confirmed in the “Certificate Viewer” pop-up.





#### 4. Method for checking information in PDF properties

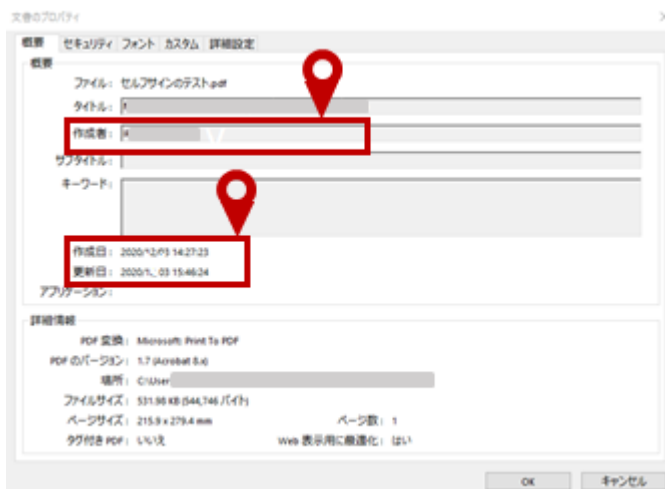
The auditor may check information in the properties of the PDF, such as the creator of the PDF and the time of creation, as a procedure to validate the authenticity of audit evidence obtained in PDF form. The procedure used to check information in the properties of the PDF is as follows:

- (1) From “File” select “Properties”.



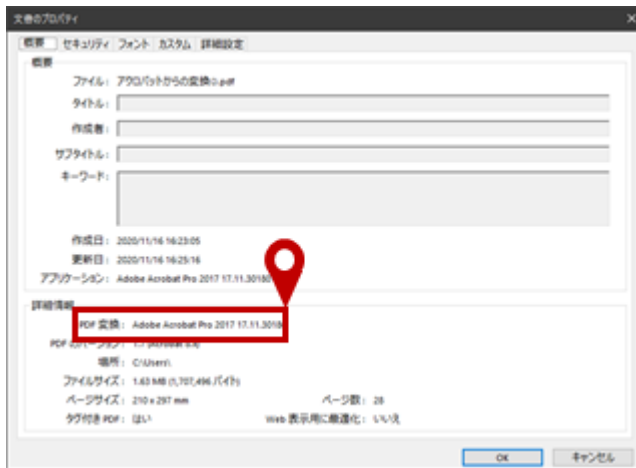


(2) In the “Document Properties” dialog, the creator, date and time of creation and date and time of modification can be confirmed. Moreover, in the “Advanced” section, the name of the software used to produce the PDF is displayed, so the auditor can check whether this is consistent with the software normally used by the company.

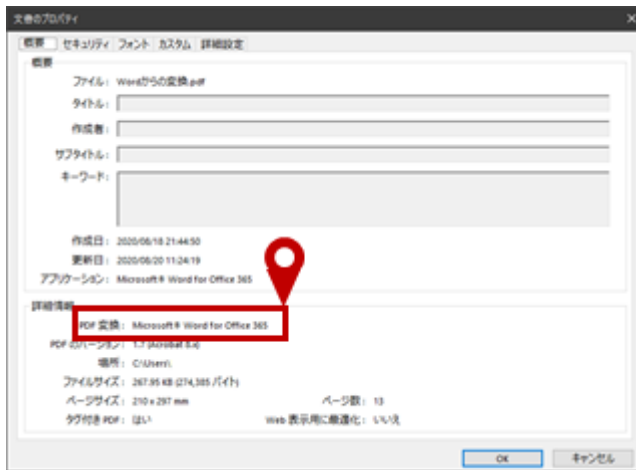


<Examples of displayed name of PDF conversion tool>

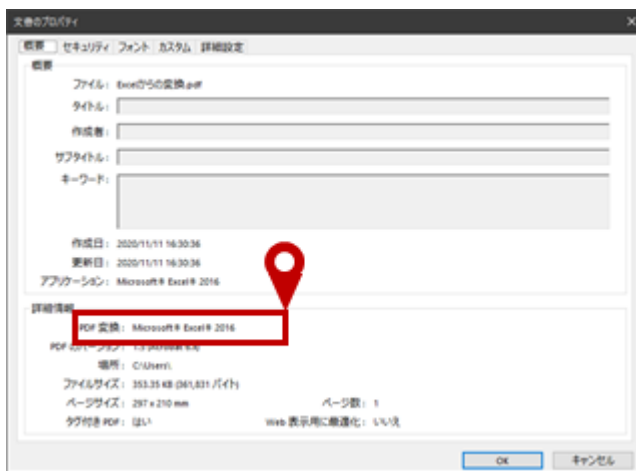
(i) When converted using Adobe Inc.’s Acrobat



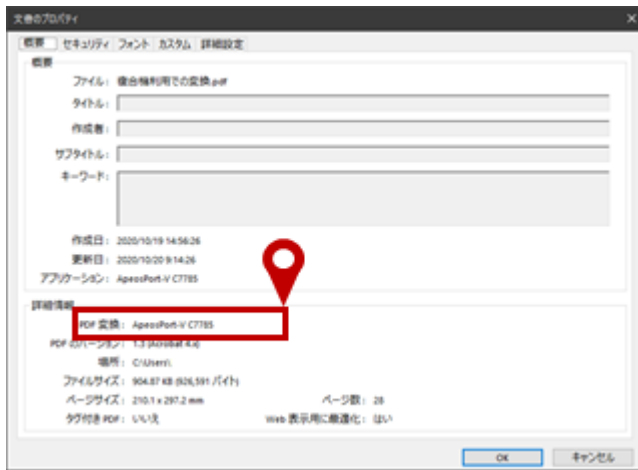
(ii) When converted using Microsoft Word



(iii) When converted using Microsoft Excel



(iv) When converted using a Fuji Xerox Co., Ltd. color multifunction device



(v) When converted using Antenna House, Inc.'s “Shunkan PDF”

