INTERNATIONAL STANDARD ISO 19005-1:2005

TECHNICAL CORRIGENDUM 2

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Document management — Electronic document file format for long-term preservation —

Part 1:
Use of PDF 1.4 (PDF/A-1)

TECHNICAL CORRIGENDUM 2

Gestion de documents — Format de fichier des documents électroniques pour une conservation à long terme —

Partie 1: Utilisation du PDF 1.4 (PDF/A-1)

RECTIFICATIF TECHNIQUE 2

Technical Corrigendum 2 to ISO 19005-1:2005 was prepared by Technical Committee ISO/TC 171, *Document management applications*, Subcommittee SC 2, *Application issues*.

This Technical Corrigendum contains corrections that were discussed by a number of technical experts and at the ISO/TC 171/SC 2 meeting held in Orlando, FL (USA) in October 2009.

These corrections are based on issues that have been raised by numerous implementers of ISO 19005-1:2005 since its publication (and its associated Technical Corrigendum 1 in 2006). In addition, certain changes made to ISO 19005-2:2011 have been incorporated where appropriate.

ICS 35.240.30; 37.100.99

Ref. No. ISO 19005-1:2005/Cor.2:2011(E)

Page 4, 3.19

Renumber existing 3.19, XMP packet, as 3.20.

Add the following new definition as 3.19:

> **3.19**
> **XMP extension schema**
> conforming XMP schema that is not defined in *XMP Specification* nor in this part of ISO 19005

Page 6, 6.1.3

Replace the second sentence of the second paragraph with the following:

> In a linearized PDF, if the **ID** keyword is present in both the first page trailer dictionary and the last trailer dictionary, the value to both instances of the **ID** keyword shall be identical.
>
> NOTE 1   *PDF Reference*, F.3.1 advises against having the **ID** keyword in the last trailer dictionary of a linearized PDF.
>
> This provision shall not apply where the value to the **L** key in the linearization dictionary does not match the actual length of the PDF.
>
> NOTE 2   This is based on the definition for the **L** entry in *PDF Reference*, Table F.1.

Renumber the existing NOTE as NOTE 3.

Page 6, 6.1.6

Add the following note after the first paragraph:

> NOTE   This provision ensures that the final digit of a hexadecimal string is never missing.

Page 6, 6.1.7

In the sentence between NOTE 1 and NOTE 2, replace

> **FDecodeParams**

with

> **FDecodeParms**

Page 7, 6.2.1

Add the following paragraph before the existing paragraph:

> A conforming interactive reader may choose to put additional user interface elements around, on top, or below the graphical elements of the page. These user interface elements may be a presentation of other PDF objects (such as bookmarks or page thumbnails) or they may represent non-PDF objects. In all cases, the user interface elements and their contents shall not be required to conform to the requirements of 6.2.2 to 6.2.10.

Page 8, 6.2.3.1

Replace the first paragraph with the following:

> All colours, except where used for a thumbnail image (*PDF Reference*, 8.2.3), shall be specified in a device-independent manner, either directly by the use of a device-independent colour space, indirectly through the use of default colour spaces (*PDF Reference* 4.5), or indirectly by the use of an **OutputIntent**. A conforming file may use any colour space specified in *PDF Reference*, except as restricted in 6.2.3.2 to 6.2.3.4.

Page 9, 6.2.10

Add the following after NOTE 2:

> Any named resource present in a resources dictionary, but whose name is not referenced from the associated content stream, is not used for rendering and therefore shall be exempt from all requirements of this part of ISO 19005.

Page 10, 6.3.3.1

In the last part of the paragraph, replace "unless the value of the **CMap** dictionary **UserCMap** key is *Identity-H* or *Identity-V*" with the following:

> "unless the value of the **Encoding** key in the font dictionary is *Identity-H* or *Identity-V*"

Page 10, 6.3.3.2

At the beginning of the paragraph, replace "For all Type 2 **CIDFonts**" with the following:

> "For all embedded Type 2 **CIDFonts** that are used for rendering"

Page 11, 6.3.6

Replace the entire subclause with the following:

> For every font embedded in a conforming file and used for rendering, the glyph width information in the font dictionary and in the embedded font program shall be consistent.
>
> NOTE   This requirement is necessary to ensure predictable font rendering, regardless of whether a given reader uses the metrics in the font dictionary or those in the font program.

Page 11, 6.3.7

Replace the entire subclause with the following:

> All non-symbolic TrueType fonts shall specify *MacRomanEncoding* or *WinAnsiEncoding*, either as the value of the **Encoding** entry in the font dictionary or as the value of the **BaseEncoding** entry in the dictionary that is the value of the **Encoding** entry in the font dictionary. If the value of the **Encoding** entry is a dictionary, it shall not contain a **Differences** entry. All symbolic TrueType fonts shall not specify an **Encoding** entry in the font dictionary, and their font programs' "*cmap*" tables shall contain exactly one encoding.
>
> NOTE   These requirements make normative the suggested guidelines described in *PDF Reference*, 5.5.5.

Page 12, 6.3.8

At the end of the first bullet point, delete the following:

"or that use the predefined **Identity-H** or **Identity-V** CMaps"

so that it now reads

"— fonts that use the predefined encodings *MacRomanEncoding*, *MacExpertEncoding* or *WinAnsiEncoding*;"

Page 12, 6.4

Replace the first paragraph with the following:

If an **SMask** key appears in an **ExtGState** dictionary, its value shall be *None*. An **XObject** dictionary shall not contain the **SMask** key.

Add the following requirement to the second paragraph so that it now reads:

A **Group** object with an **S** key with a value of *Transparency* shall not be included in a form **XObject**. A **Group** object with an **S** key with a value of *Transparency* shall not be included in a page dictionary.

Page 13, 6.5.3

Replace the paragraph between NOTE 2 and NOTE 3 with the following:

For all annotation dictionaries containing an **AP** key, the appearance dictionary that it defines as its value shall contain only the **N** key. If an annotation dictionary's **Subtype** key has a value of *Widget* and its **FT** key has a value of *Btn*, the value of the **N** key shall be an appearance subdictionary; otherwise the value of the **N** key shall be an appearance stream.

Page 13, 6.6.1

Add the following as the third paragraph:

The **Hide** action shall not be permitted.

Page 14, 6.7.1

Replace the first sentence with the following:

6.7.2 to 6.7.11 specify requirements for document-level metadata within conforming files.

Page 14, 6.7.2

Replace the entire subclause with the following:

The document catalog dictionary of a conforming file shall contain the **Metadata** key. The metadata stream that forms the value of that key shall conform to *XMP Specification*. All document-level metadata properties embedded in a file shall be in XMP form except for document information dictionary entries that have no XMP analogues, as defined in 6.7.3.

Properties specified in XMP form shall use either the predefined schemas defined in *XMP Specification*, or the property **xmpMM:InstanceID** as defined in this subclause, or extension schemas that comply with *XMP Specification*, and 6.7.8, or the extension schemas defined in this part of ISO 19005.

NOTE 1   **xmpMM:InstanceID** is specifically mentioned here as it is not documented in the *XMP Specification* but is in common use by various PDF/A conforming writers.

Within the XMP Media Management Schema, as defined in *XMP Specification*, having a namespace of http://ns.adobe.com/xap/1.0/mm/ and a preferred prefix of xmpMM, the field **xmpMM:InstanceID** shall be defined as follows:

Table 1 – InstanceID property of the XMP media management schema

Property	Value type	Category	Description
xmpMM:InstanceID	URI	Internal	An identifier for a specific incarnation of a document, updated each time a file is saved. It should be based on a UUID; see Document and Instance IDs below.

The metadata stream dictionary, which is the value of the **Metadata** key in the document catalog dictionary, shall not contain the **Filter** key.

NOTE 2   The explicit prohibition of the **Filter** key has the implicit effect of preserving the contents of the metadata stream as plain text that is visible to non-PDF aware tools.

Page 14, 6.7.3

After NOTE 1, add the following:

NOTE 2   This requirement also applies to empty (zero length) strings.

Renumber the existing NOTE 2 as NOTE 3.

Renumber the existing Table 1 as Table 2.

In Table 2 (existing Table 1), change the values in the **Title** element row as follows:

Change the value of Property to
        dc:title["x-default"]

Change the value of XMP type to
        Text

Page 15, 6.7.3

Replace the paragraph between NOTE 2 and EXAMPLE 1 with the following:

If the **Author** entry is present in the document information dictionary and the **dc:creator** property is present in XMP metadata, then **dc:creator** shall be represented by an ordered Text array with a single entry. Equivalence between **Author** and **dc:creator** shall be on a character-by-character basis, independent of encoding, comparing the numeric ISO/IEC 10646-1 code points for the characters.

In EXAMPLE 1, add a comma after "Paul" so it reads:

/Author (Peter, Paul, and Mary)

Page 16, 6.7.8

Add the following to NOTE 1:

If a schema that is defined in 6.7.8 is used, all fields defined in that schema's definition in the respective table in 6.7.8 shall be present.

Remove "NOTE 1" as it is now normative text.

Page 17, 6.7.8

Renumber the existing Table 2, PDF/A extension schema container schema, as Table 3.

Change all references to "*XMP Specification* 4" or "*XMP Specification* 2004, 4" to "*XMP Specification*".

Renumber the existing Table 3, PDF/A schema value type, as Table 4.

Renumber the existing Table 4, PDF/A Property value type, as Table 5.

Replace the paragraph after existing Table 4, PDF/A Property value type, with the following:

The values for **pdfaProperty:valueType** shall either be value types defined in the *XMP Specification* or custom value types defined within the extension schema.

Renumber the existing Table 5, PDF/A ValueType value type, as Table 6.

Renumber the existing Table 6, PDF/A Field value type, as Table 7.

Page 18, 6.7.11
Renumber the existing Table 7, PDF/A identification schema, as Table 8.

Page 19, 6.8.2.2

Replace the first paragraph with the following:

The document catalog dictionary shall include a **MarkInfo** dictionary with a **Marked** entry in it, whose value shall be *true*.

Page 20, 6.8.3.3

Replace the second paragraph with the following:

Each structure element dictionary in the structure hierarchy should have a **Type** entry with the name value of **StructElem**.