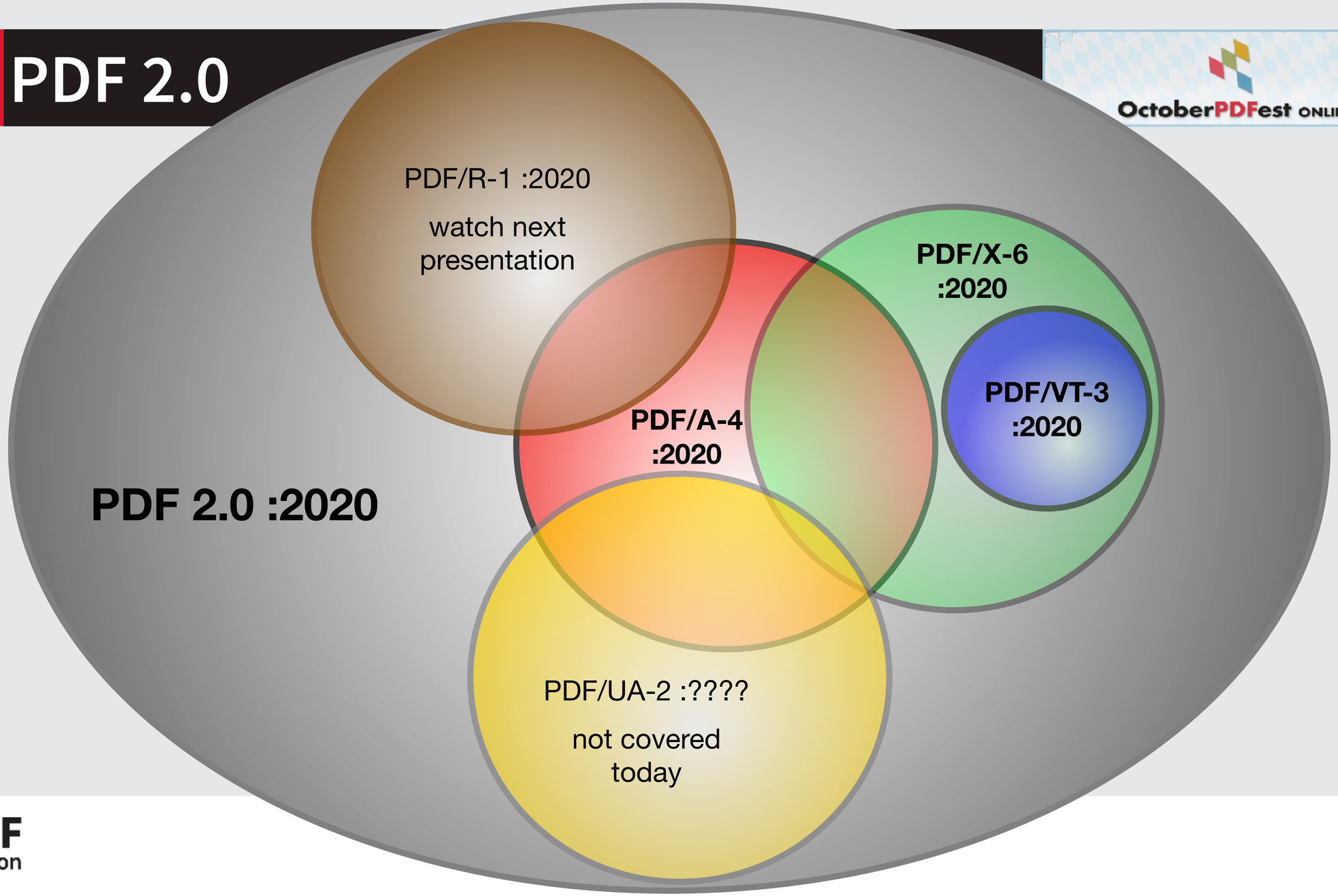
OctoberPDFest
ONLINE

PDF/A-4, PDF/X-6
and the other new PDF standards…

…based on PDF 2.0

PDF 2.0


PDF/R-1 :2020
watch next presentation
PDF/X-6 :2020
PDF/VT-3 :2020
PDF/A-4 :2020
PDF 2.0 :2020
PDF/UA-2 :????
not covered today

Overview

- PDF 2.0 dated revision
- Subsets
  - PDF/A (and PDF/E)
  - PDF/X and PDF/VT

PDF 2.0 (2017) news - recap

- New features to define color in a device independent way, e.g. page level output intent profiles

  ➡ All subset standards require device independent colors (by means of a source profile or the output intent)

- Encryption and signatures (Unicode passwords, more powerful algorithms, PAdES)
- Page metadata (DPart metadata from PDF/VT)
- …

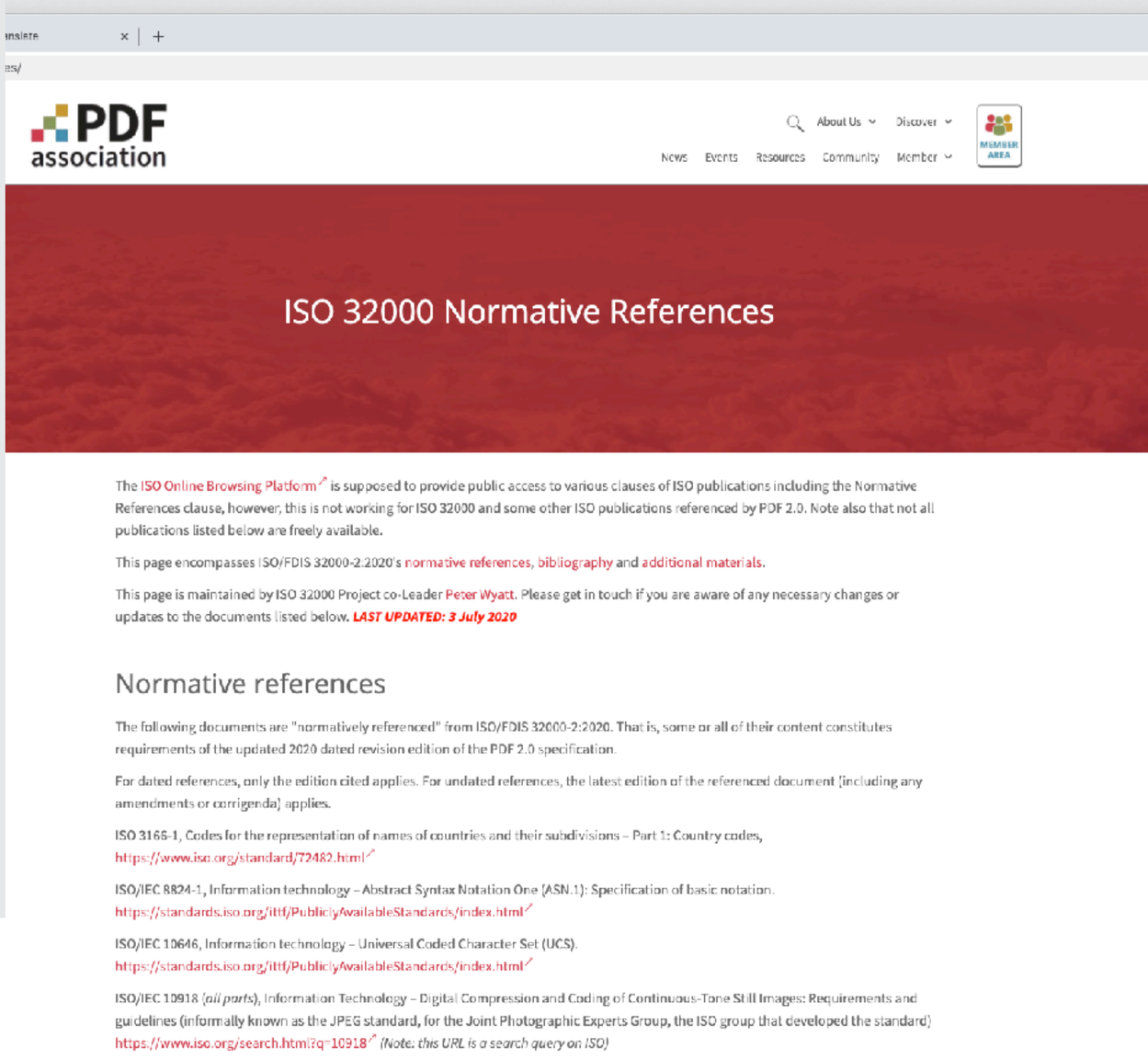
PDF 2.0 ➡ PDF 2.0:2020

- Changed character collections
  (CMAPs with new JP era glyph and other changes)
- Clarification of the alternate image selection algorithm
- Tagged PDF: Parent-child relationships (Annex L)
- How to extend PDF (Annex E)
- How to handle PDF versions and compatibility (Annex I)
- Normative references updated…

PDF 2.0:2020 Normative references

OctoberPDFest ONLINE

- PDF Association now maintains a list of resources at https://www.pdfa.org/iso-32000-normative-references/



PDF association

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ISO 32000 Normative References

The ISO Online Browsing Platform is supposed to provide public access to various clauses of ISO publications including the Normative References clause, however, this is not working for ISO 32000 and some other ISO publications referenced by PDF 2.0. Note also that not all publications listed below are freely available.

This page encompasses ISO/FDIS 32000-2.2020's normative references, bibliography and additional materials.

This page is maintained by ISO 32000 Project co-Leader Peter Wyatt. Please get in touch if you are aware of any necessary changes or updates to the documents listed below. ***LAST UPDATED: 3 July 2020***

Normative references

The following documents are "normatively referenced" from ISO/FDIS 32000-2:2020. That is, some or all of their content constitutes requirements of the updated 2020 dated revision edition of the PDF 2.0 specification.

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

ISO 3166-1, Codes for the representation of names of countries and their subdivisions – Part 1: Country codes,
https://www.iso.org/standard/72482.html

ISO/IEC 8824-1, Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.
https://standards.iso.org/ittf/PubliclyAvailableStandards/index.html

ISO/IEC 10646, Information technology – Universal Coded Character Set (UCS).
https://standards.iso.org/ittf/PubliclyAvailableStandards/index.html

ISO/IEC 10918 (*all parts*), Information Technology – Digital Compression and Coding of Continuous-Tone Still Images: Requirements and guidelines (informally known as the JPEG standard, for the Joint Photographic Experts Group, the ISO group that developed the standard)
https://www.iso.org/search.html?q=10918 *(Note: this URL is a search query on ISO)*

PDF association

PDF 2.0 ➡ PDF 2.0:2020 (4)

- From an end user point of view not very exciting
- From a vendor point of view very much,
  parties should check “their” chapters and search for “(2020)”

- PDF 2.0:2020 (or 2021) is a very clean basis for a new series of subset standards…

PDF/A-4

PDF/A-4 eases PDF/A conversion

- Removed or relaxed provisions
- More features (fewer conversion requirements)
- Close relationship to PDF/X-6 and PDF/UA-2 (once published)

Removed provisions

- No Extension Schemas XMP
- No synching of XMP with Document Information dictionary (because the Document Information dictionary is deprecated)
- No CIDSet and CharSet requirements
- No implementation limits

- Almost all pain points for conversion addressed

Live forms (and annotations)

- Relaxed requirements for form fields
  - Actions and JavaScript permitted
  - May only be executed when invoked by user
  - All trigger events (AA entries) permitted
- Relaxed requirements for annotations
  - Certain trigger events (only those ones directly triggered via direct user interaction with the annotation)

VOID CORRECTED

PAYER'S name, street address, city or town, state or province, country, ZIP or foreign postal code, and telephone no.

1 Rents $

2 Royalties $

OMB No. 1545-0115

2019

Form 1099-MISC

Miscellaneous Income

3 Other income $

4 Federal income tax withheld $

Copy 1 For State Tax Department

PAYER'S TIN

RECIPIENT'S TIN

5 Fishing boat proceeds $

6 Medical and health care payments $

RECIPIENT'S name

Street address (including apt. no.)

City or town, state or province, country, and ZIP or foreign postal code

7 Nonemployee compensation $

8 Substitute payments in lieu of dividends or interest $

9 Payer made direct sales of $5,000 or more of consumer products to a buyer (recipient) for resale ▶

10 Crop insurance proceeds $

11

12

Account number (see instructions)

FATCA filing requirement

13 Excess golden parachute payments $

14 Gross proceeds paid to an attorney $

More features from PDF 2.0

- Page level output intents
- Signatures
  - Simple digital signatures (no time stamp)
    PAdES-BES or PAdES-EPES
  - Enable validation after expiration of certificate
    PAdES-T
  - Enable re-signing after expiration
    PAdES-A
  - Proof of existence
    PAdES-DT

Conformance levels deprecated

- “U” (unicode) deprecated
  - 100% unicode not supported by various creators, in PDF/A-4 only “should”

- “A” (accessibility) deprecated
  - Much more comprehensively addressed in PDF/UA

New: PDF/A-4f and PDF/A-4e

- PDF/A-4f
  - Successor to PDF/A-3
    (conformance levels B, A and U)
  - Arbitrary embedded file formats plus metadata

- PDF/A-4e
  - Successor to PDF/E (engineering)
  - 3D models in U3D or PRC plus
    embedded files with further information

PDF/A-1b, PDF/A-2b	➡ PDF/A-4
PDF/A-3	➡ PDF/A-4f
PDF/E	➡ PDF/A-4e

Why use PDF/A-4?

- From a standards point of view no reason to change - or not to change
- Reasons to change
  - Easier and more straightforward conversion
    - Removed or relaxed provisions
    - More features (fewer conversion requirements)
  - Close relationship to PDF/X-6 and PDF/UA-2 (once published)…

PDF/X-6

Combining PDF/A with PDF/X?

- Coming from PDF/A
  - Making sure that the file is prepared for print
  - Stricter requirements for color

- Coming from PDF/X
  - More robust rendering on screen
  - Formal reasons (national archives)

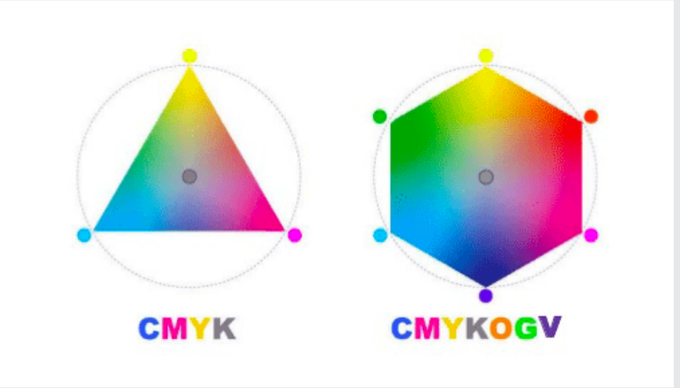
- ~ 50% of the requirements are identical

PDF/X-6 “inherits” from PDF/A-4

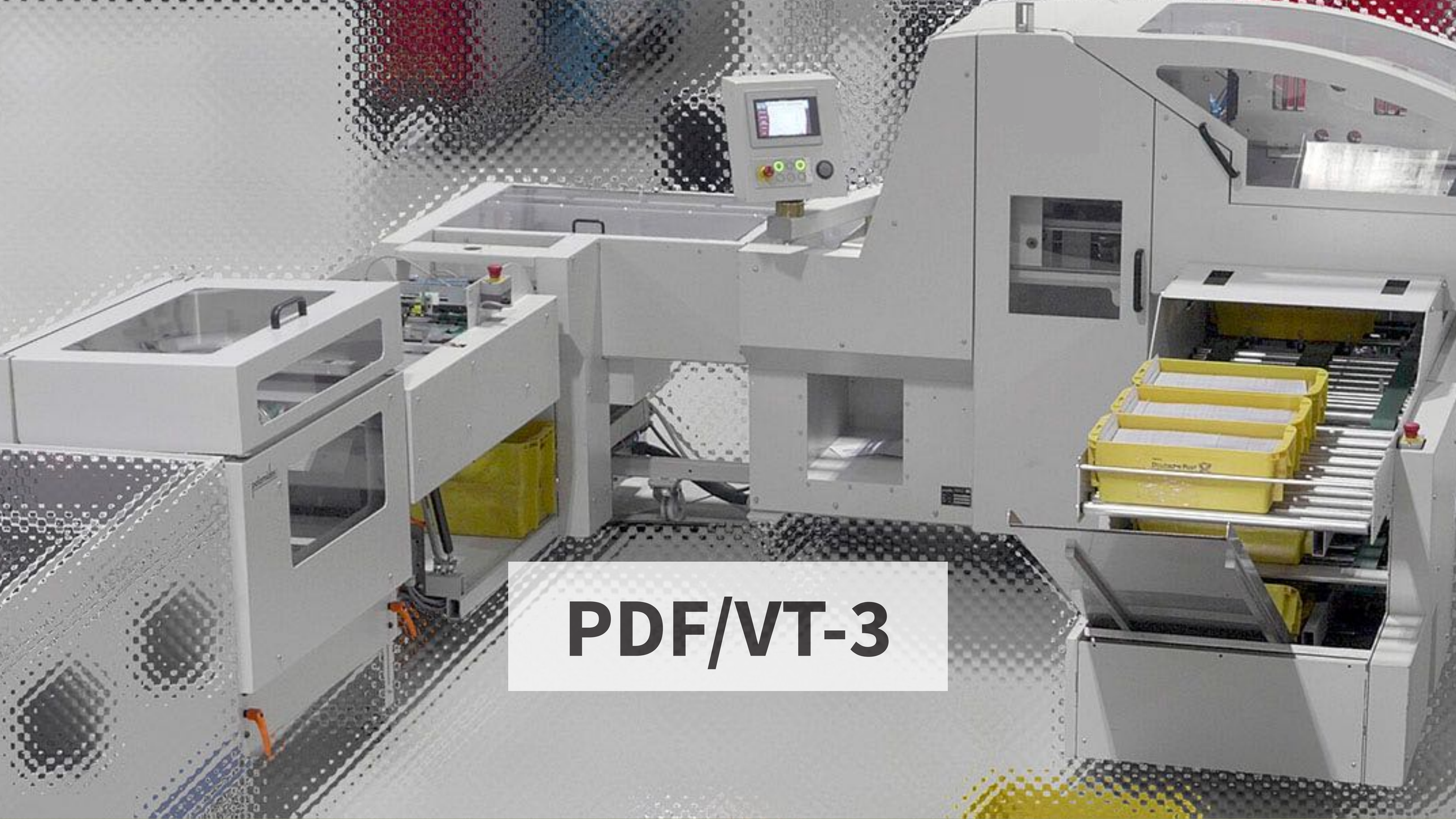
- Syntax provisions
- Annotations and forms permitted
  - Appearance (PDF syntax) is required by PDF 2.0

Conformance levels

- Multi-channel color (CMYKOGV)
  PDF/X-5n ➡ **PDF/X-6n**

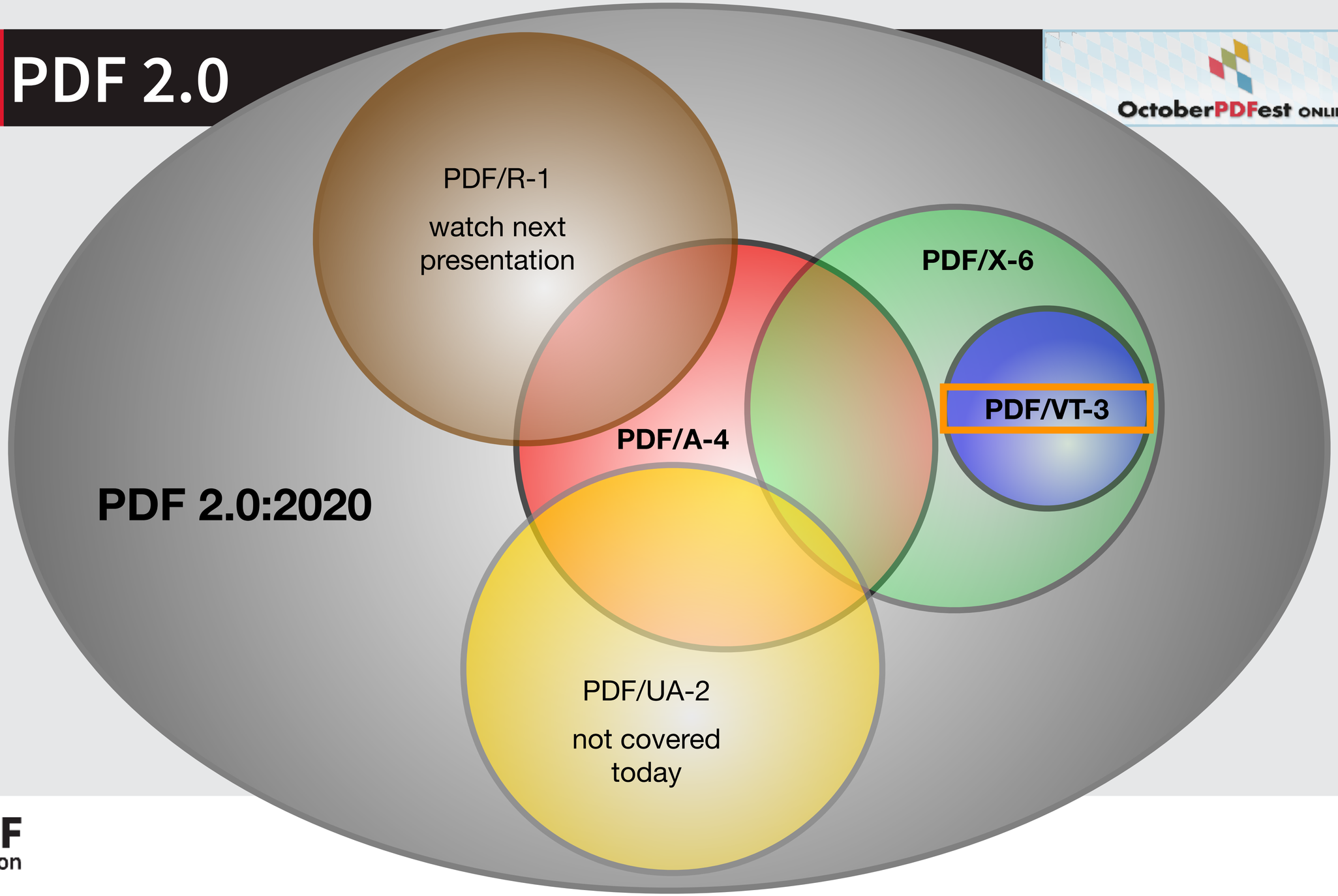


- Referenced ICC profiles in output intent (smaller file sizes)
  PDF/X-5p ➡ **PDF/X-6p**



PDF/VT-3

PDF 2.0


PDF/R-1
watch next presentation
PDF/X-6
PDF/VT-3
PDF/A-4
PDF 2.0:2020
PDF/UA-2
not covered today

Hierarchical DPart metadata

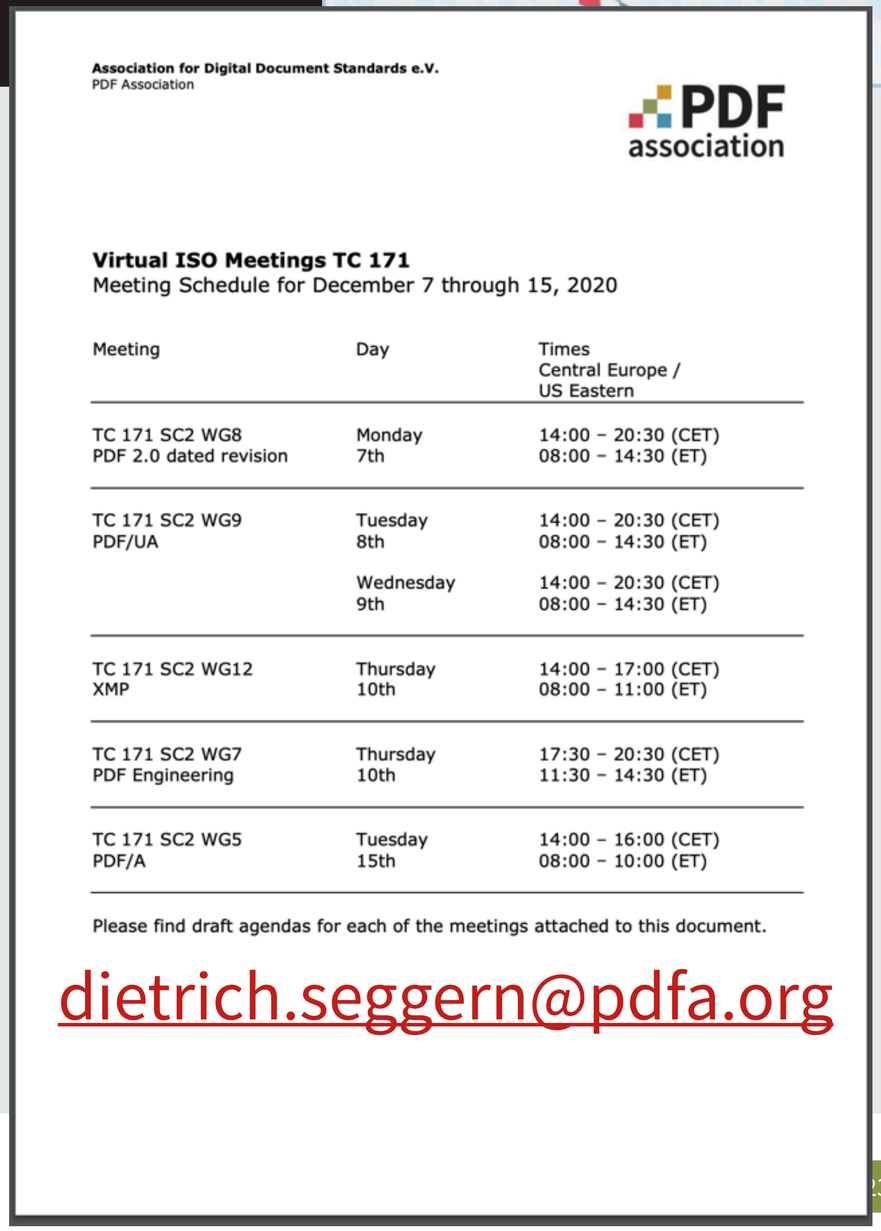
- Processing (binding, folding etc.) and/or recipient information
- DPart syntax now defined in PDF 2.0
- Standard fields and values for various use cases
  defined in related standard: Print Product Metadata (ISO 21812-1)

- PDF Association TWGs and LWGs have just started
  to create Application Notes

dietrich.seggern@pdfa.org

Interested in ISO work?

- It was never as easy to join (for members)
- ISO TC171 SC2 - December 7 through 15
  - PDF 2.X Next
  - PDF/UA-2
  - XMP
  - 3D PDF
  - PDF/A



Association for Digital Document Standards e.V.
PDF Association

PDF association

Virtual ISO Meetings TC 171
Meeting Schedule for December 7 through 15, 2020

Meeting	Day	Times Central Europe / US Eastern
TC 171 SC2 WG8 PDF 2.0 dated revision	Monday 7th	14:00 – 20:30 (CET) 08:00 – 14:30 (ET)
TC 171 SC2 WG9 PDF/UA	Tuesday 8th	14:00 – 20:30 (CET) 08:00 – 14:30 (ET)
	Wednesday 9th	14:00 – 20:30 (CET) 08:00 – 14:30 (ET)
TC 171 SC2 WG12 XMP	Thursday 10th	14:00 – 17:00 (CET) 08:00 – 11:00 (ET)
TC 171 SC2 WG7 PDF Engineering	Thursday 10th	17:30 – 20:30 (CET) 11:30 – 14:30 (ET)
TC 171 SC2 WG5 PDF/A	Tuesday 15th	14:00 – 16:00 (CET) 08:00 – 10:00 (ET)

Please find draft agendas for each of the meetings attached to this document.

dietrich.seggern@pdfa.org

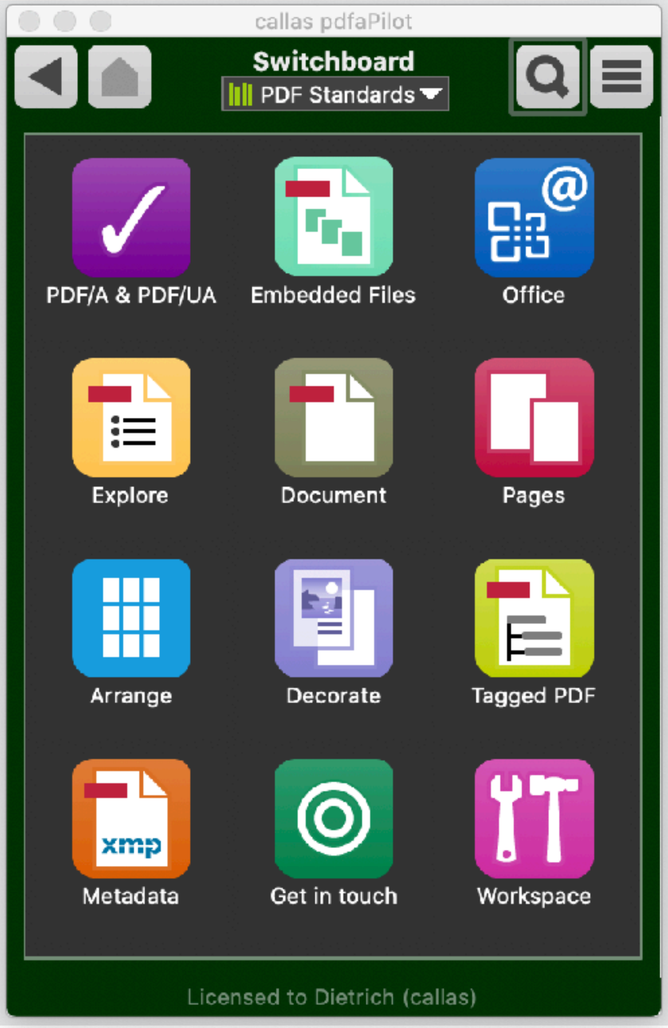
PDF/A-4, PDF/X-6
and the other new PDF standards…

…based on PDF 2.0

callas pdfaPilot

OctoberPDFest ONLINE

- Technology with strong support for PDF based ISO standards
- Usually validation and conversion for new standards available when they are published
- Same technology as in Adobe Acrobat, Foxit Phantom and others



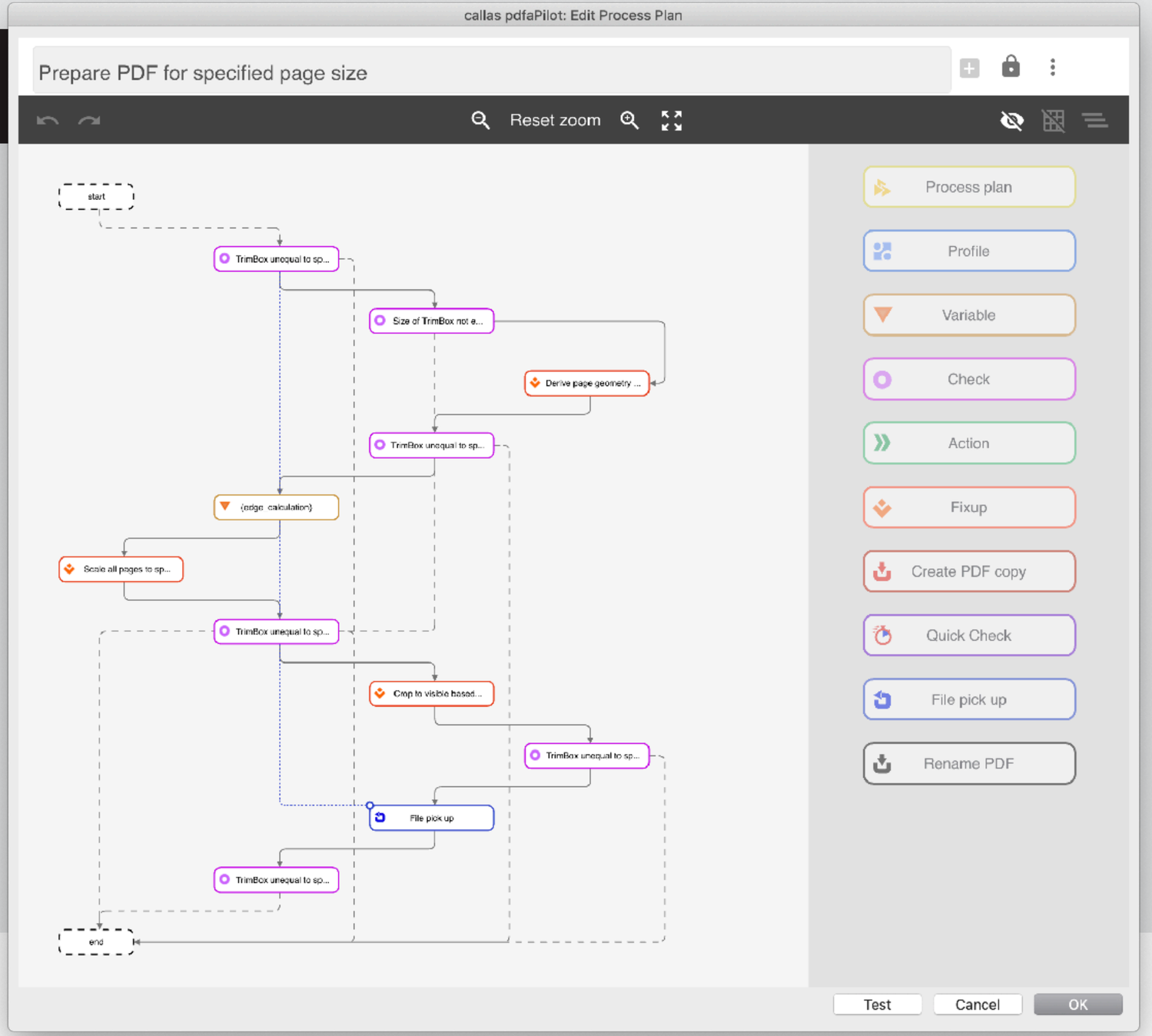
pdfaPilot - ISO standards

- Customizable validation and conversion (Profile based)
  - Merge PDF/A and PDF/X Profiles
  - Add additional requirements (Checks)
  - Add or modify corrections (Fixups)

- Design Profiles in pdfaPilot Desktop,
  use them in pdfaPilot CLI or pdfaPilot SDK

Process Plans

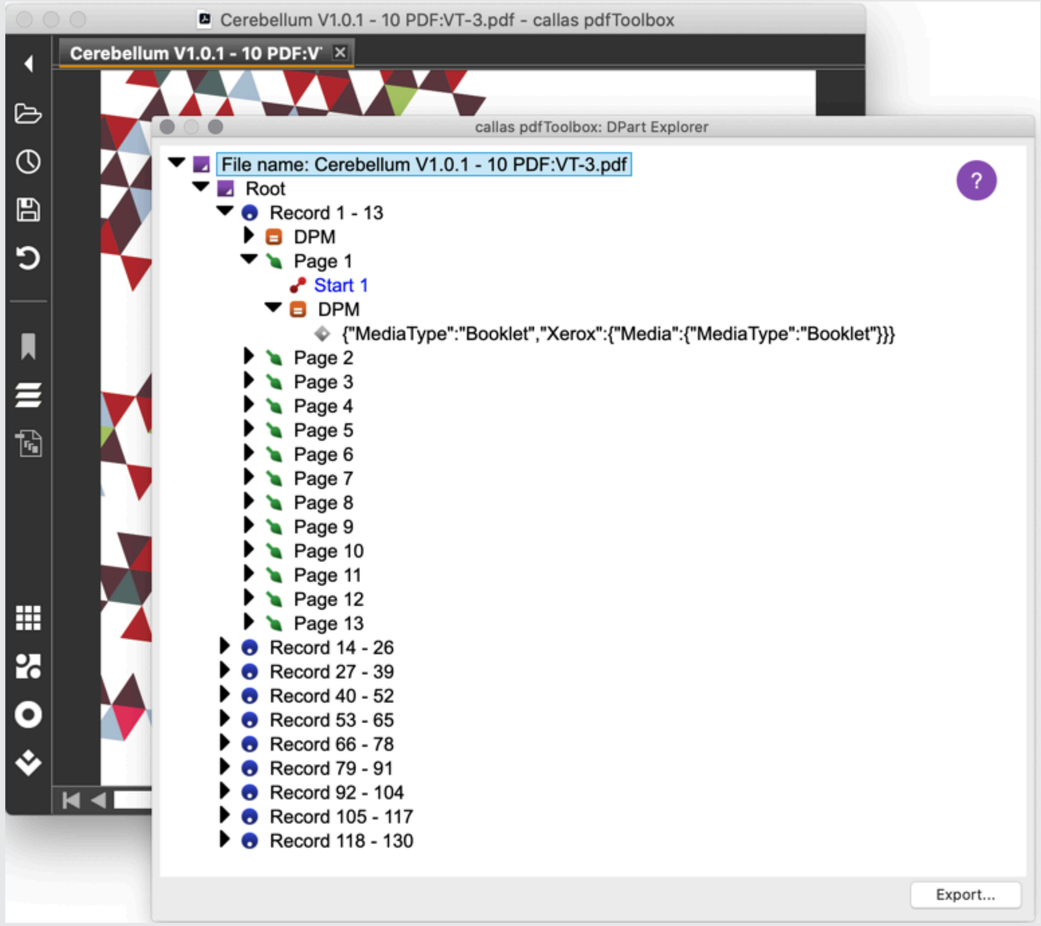
Combine Profiles, Checks and Fixups to “Process Plans”

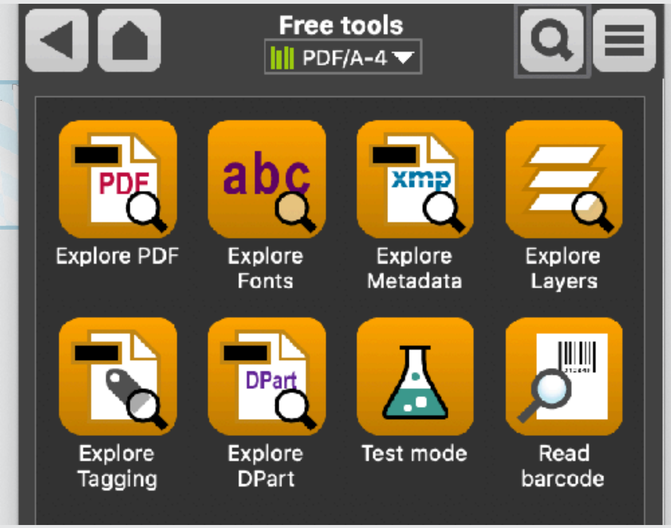


callas

Free tools in pdfaPilot Desktop

Explore DPart metadata

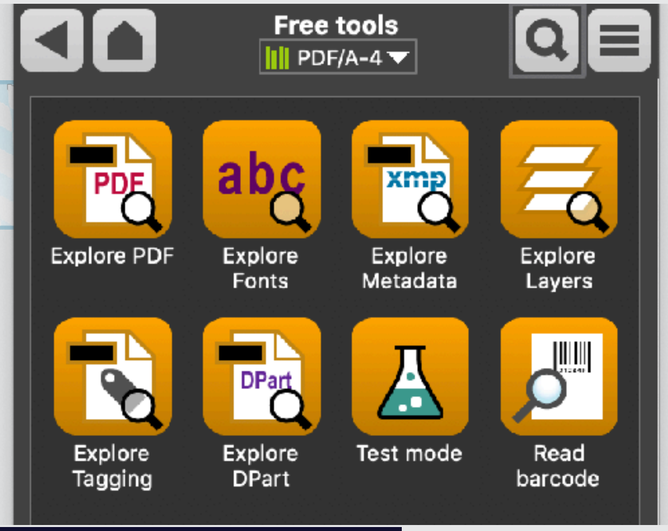


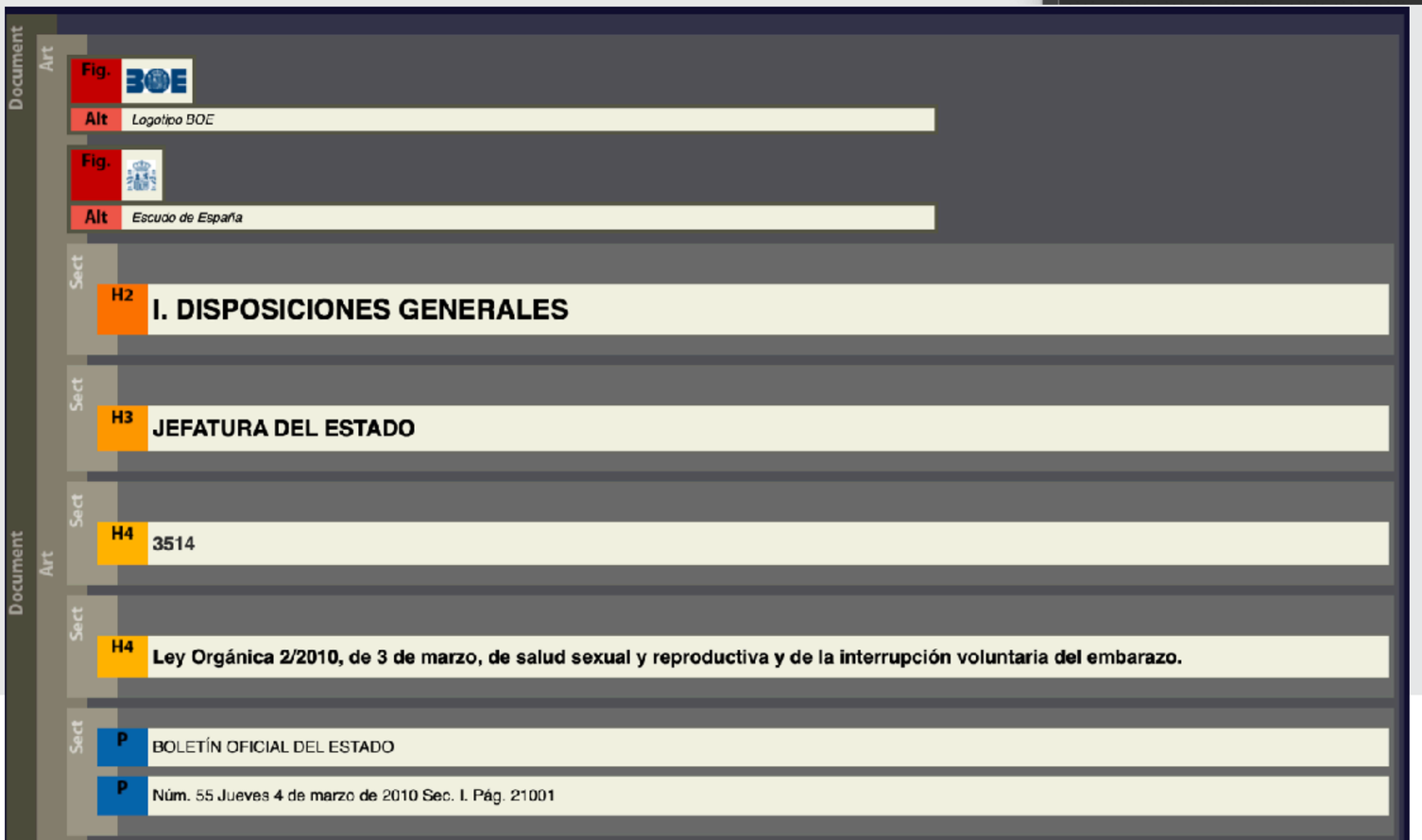


Free tools in pdfaPilot Desktop

Explore DPart metadata

Explore Tagging



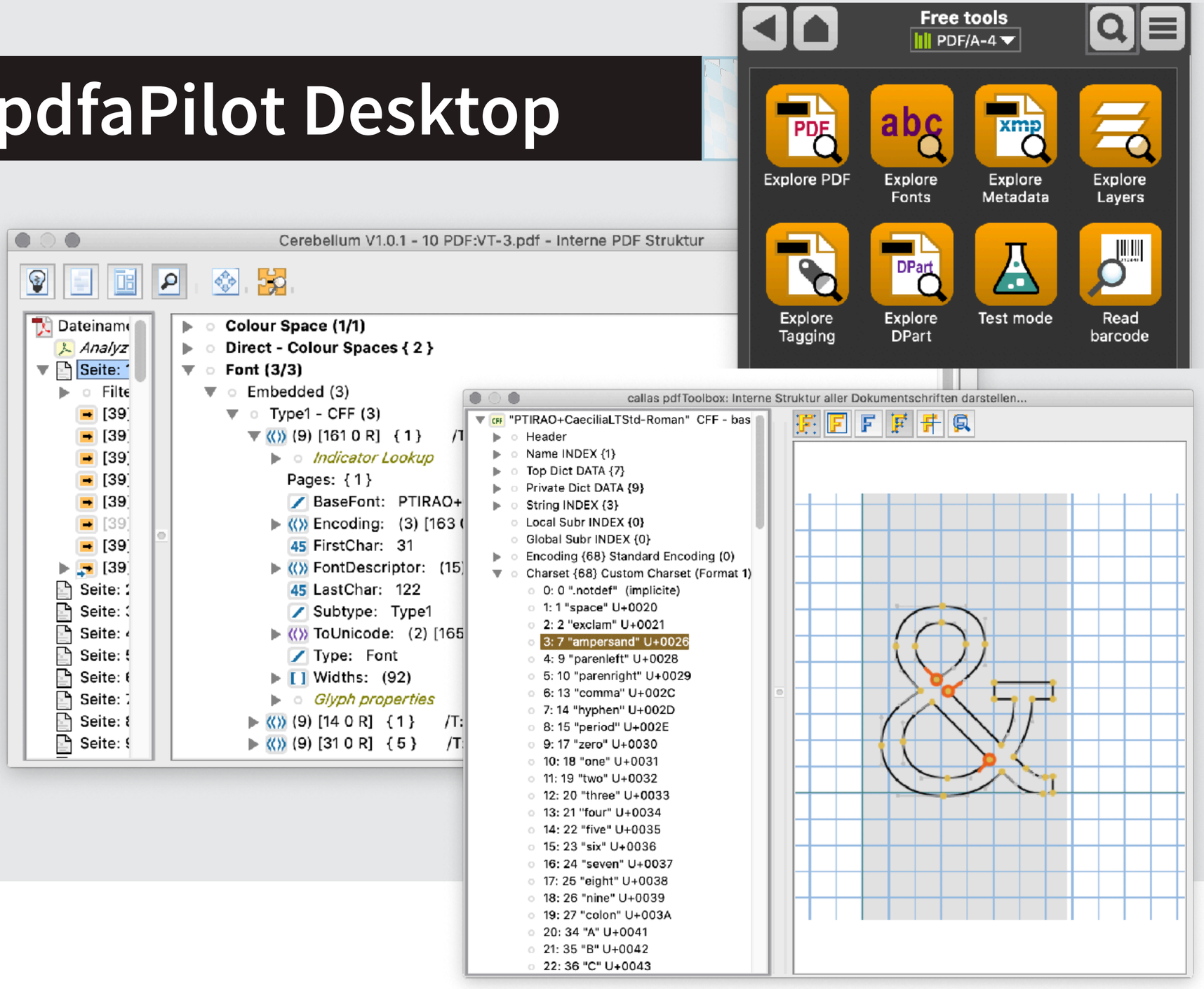


Free tools in pdfaPilot Desktop

Explore DPart metadata

Explore Tagging

Explore PDF, Fonts
(almost free…)



callas

pdfaPilot - file format conversions

- Office files (Microsoft Office, LibreOffice)
- Emails (native file formats)
- Email attachments (calendar, vCard)
- HTML
- Images
- PostScript, EPS
- Post process on PDF side
  immediate support for PDF/A-4
- …

pdfaPilot - file format conversions

OctoberPDFest ONLINE

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  immediate support for PDF/A-4
- …

Meet you next week on Tuesday…?

In this channel:
Lessons learned from 7 years office conversion

Tuesday, October, 13th
1700 CEST / 1500 UTC / 0800 PT

Automate office files to PDF

Microsoft, LibreOffice or other? Answers to this and other questions.

Document management | Creation | Archiving | Reuse

Dietrich von Seggern
callas software GmbH

Most office files are created with Microsoft Office and quality of conversion is defined by the degree to which it is the similar to what … read more

PDF/A-4, PDF/X-6
and the other new PDF standards…

…based on PDF 2.0