

Common PDF Interoperability Concerns

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PDF Product Line | Datalogics, Inc.



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**Established
in 1967**

**Providing
Adobe PDF
toolkits to
developers
since 1997**

**PDF
Association
Member**

**Located in
Chicago**

**Active in PDF
community**





The PDF file format is:

Vast

Feature rich

Open format



Hundreds of different PDF processors

Implemented from scratch

In different languages

Results may vary





“Technically Valid” PDFs May Appear Differently



Most Common Discrepancies

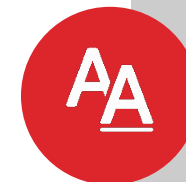
www.pdfa.org



**Unsupported
image types**



**Transparency
processing
inconsistencies**



Font challenges



Color variations



**Overprint
issues**



**Annotation
appearance
differences**



Common Unsupported Image Types



16 bit images

Often used for
their wide color
gamut



JBIG2

Lossless
compression for
bi-level images



JPEG2000

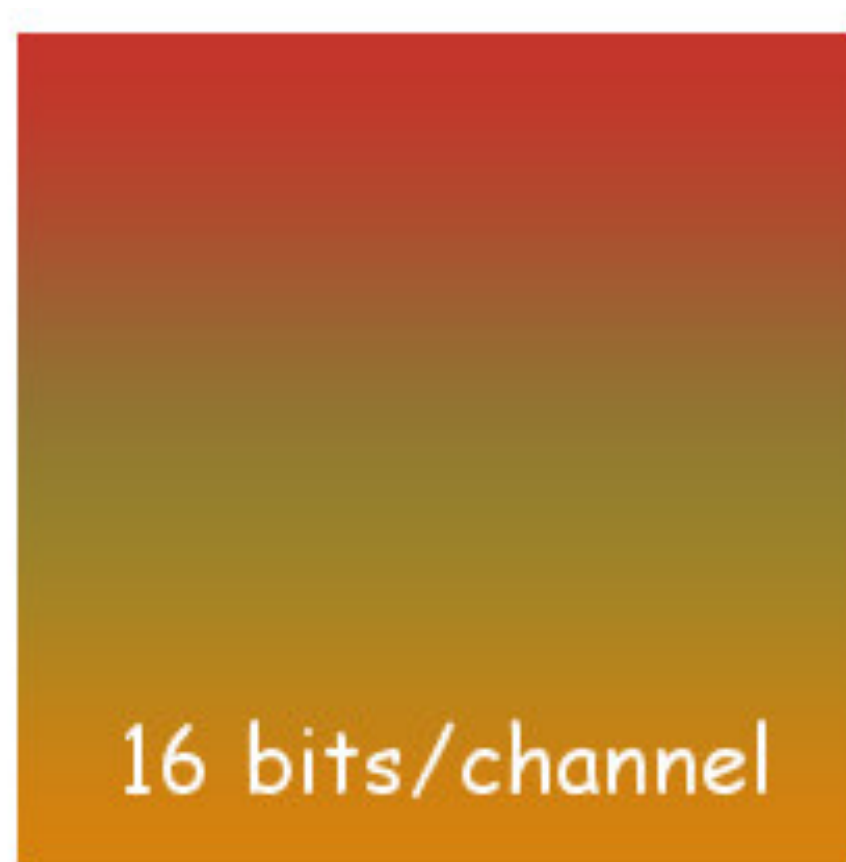
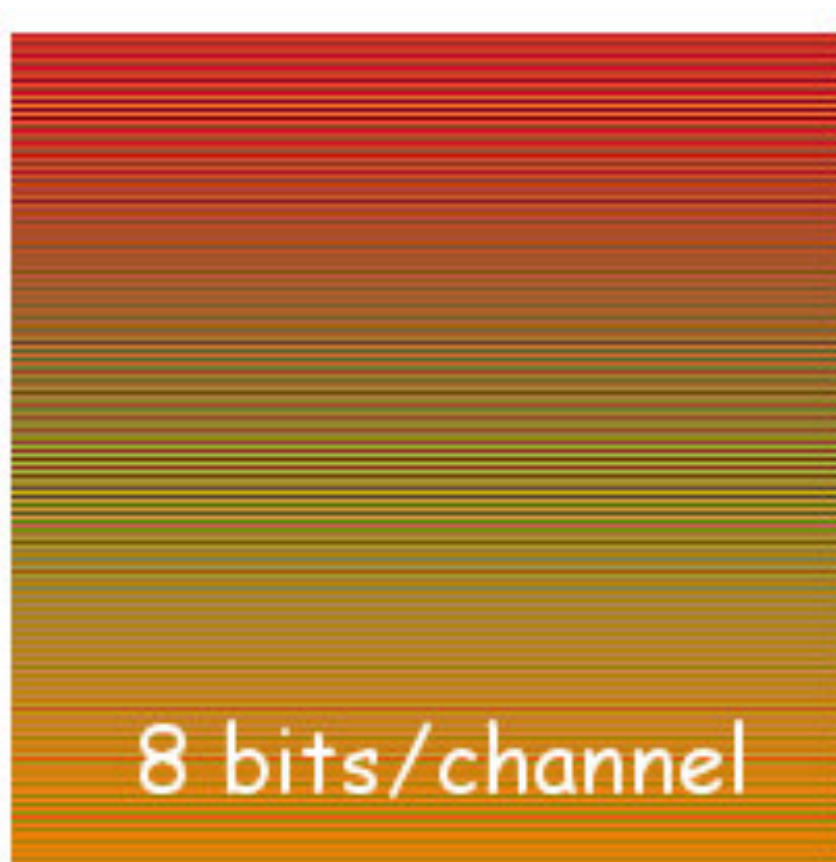
A successor to
JPEG



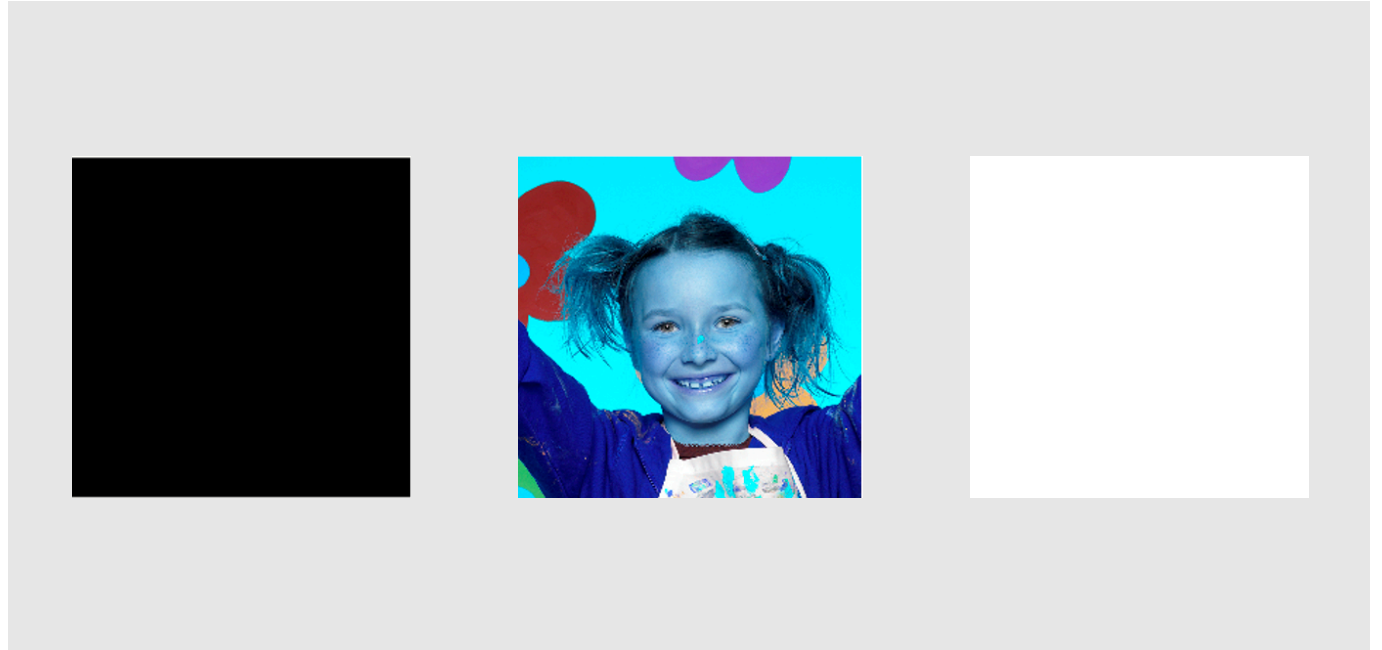
- A wider color gamut
- 65,536 tonal values vs. 256 in 8 bit
- Commonly used in photography when shooting "RAW"
- Image showing bits



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ORIGINAL



- **Use common image formats**
- **Make sure color spaces are appropriate for your audience**
- **Use tools with a fully color-managed workflow**



- **Transparency is often used in PDF files**
- **Transparency reduces file size**
- **Different types of transparency**
- **Often incomplete support in different PDF toolkits/viewers**
- **Having transparency makes your document slow to process**
- **Accidental transparency**



Transparent Image



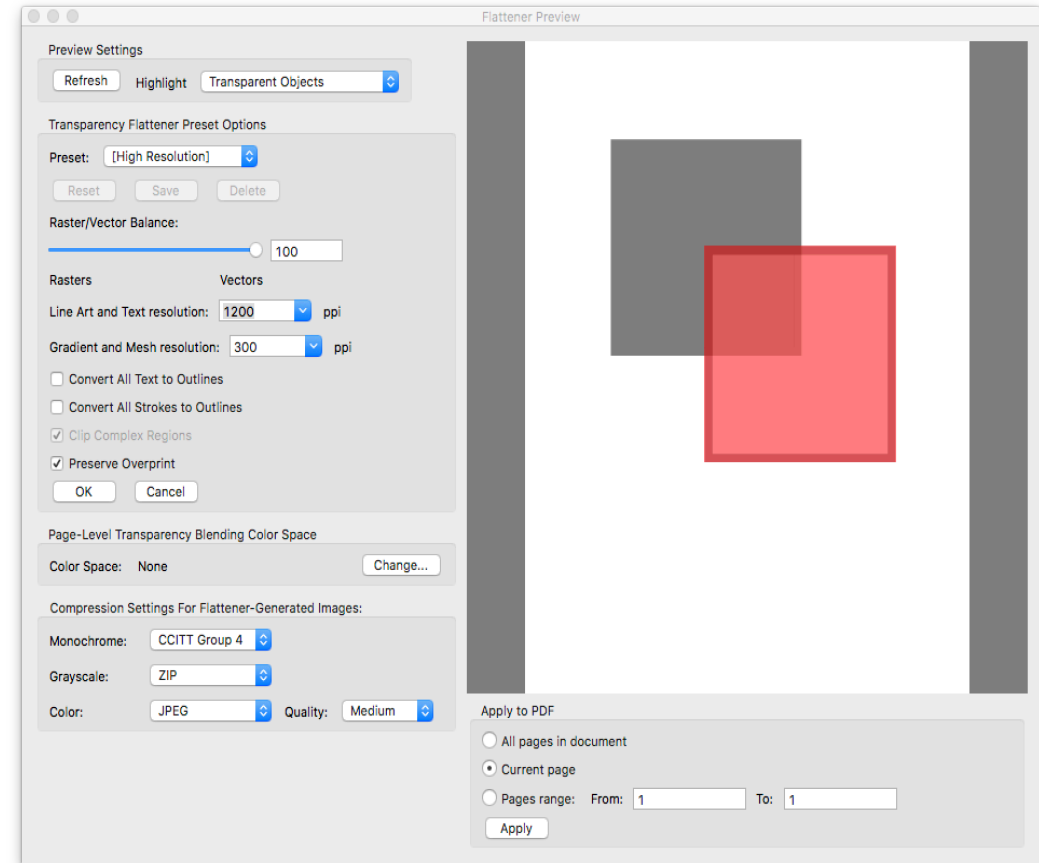
Disassembled Images



Why flatten transparency

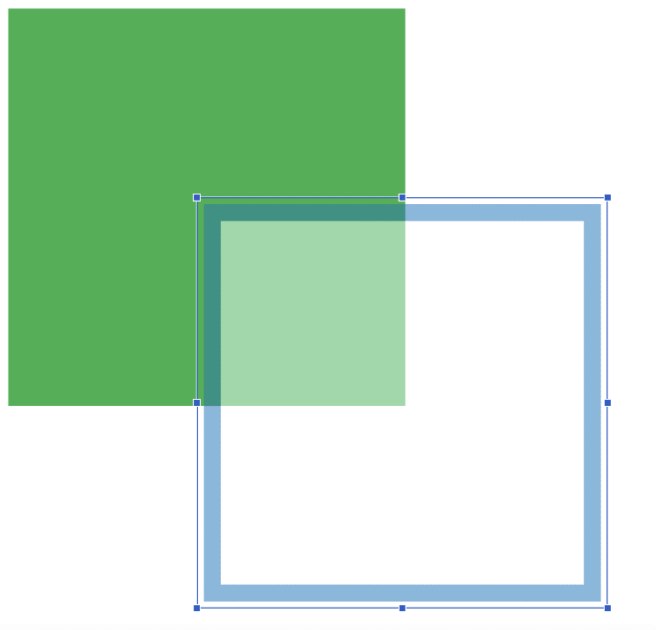
- Eliminate ambiguity (of the author's intent)
- If your document or artwork contains transparency to be output, it usually needs to undergo a process called *flattening*

Bad files slow down the process

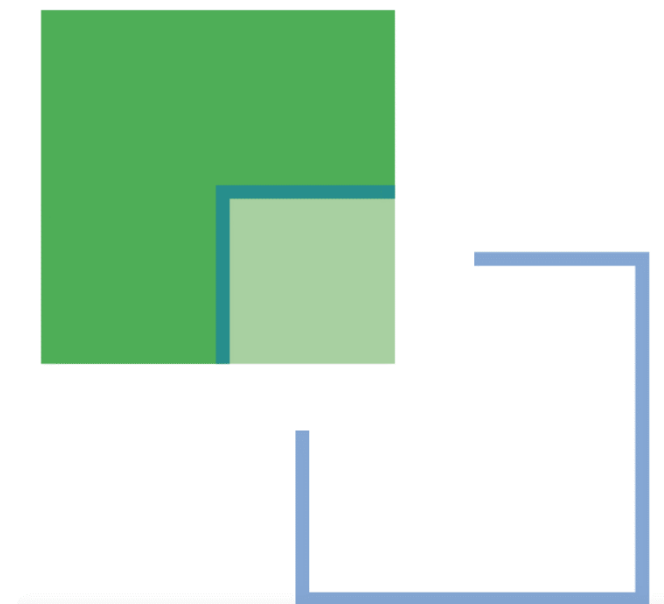


How Does Flattening Work?

Pre-flatten: 73k



Post-flatten: 396k



Flattening Advantages and Tradeoffs



Reduced time to process files

- Files can be flattened prior to print
- Reduced time at the press



Increased file size



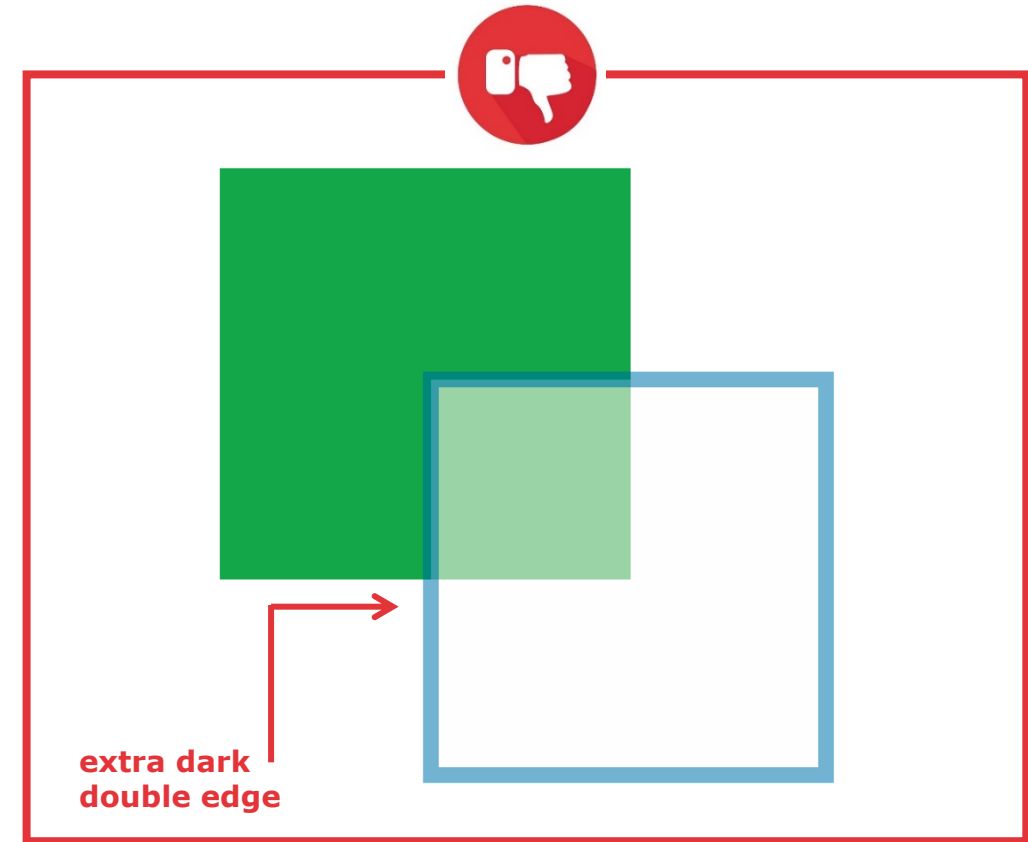
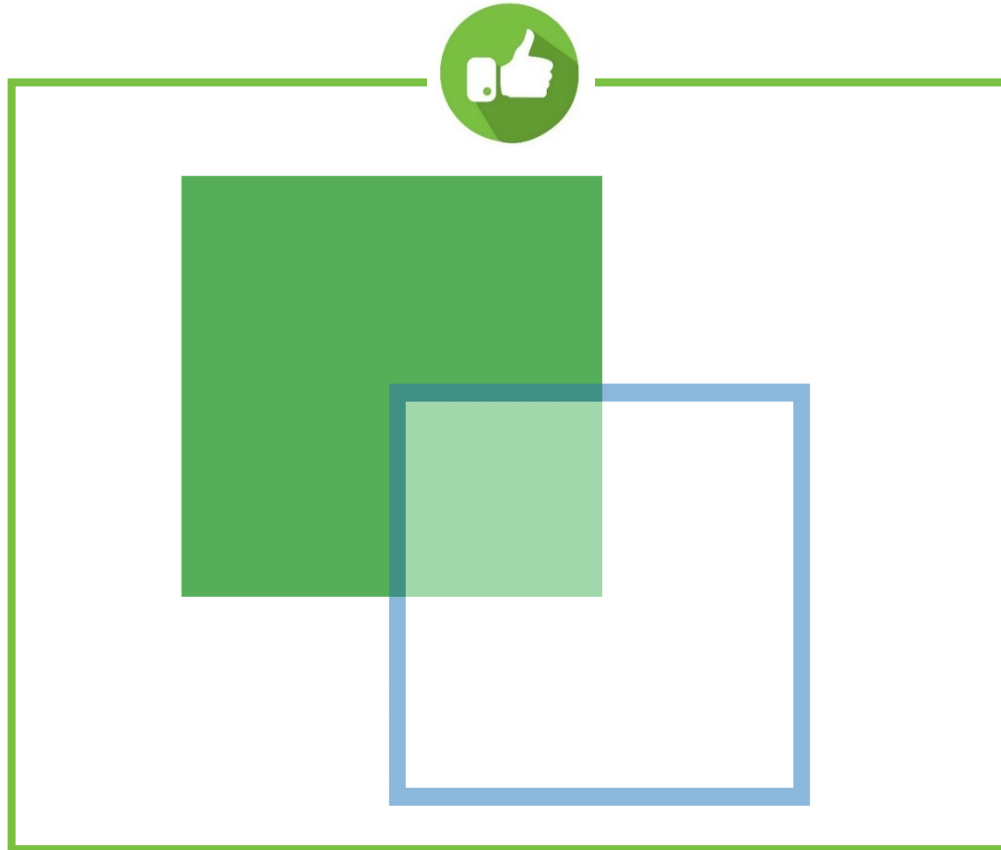
Eliminate ambiguity



Less options for editing



Problems That Can Occur During Flattening



- **File size needs to be minimal**

- **You have control over the complete workflow**
If your tools can handle transparency

- **100% accurate file reproduction is not critical**



Font Challenges

**Embedded
fonts**

**Fonts not
embedded
properly**

Missing fonts

**Wrong
characters
in fonts**

**Different
versions of
a font**

**Same fonts
with different
names**

Font licensing

**File size due
to excess
fonts**



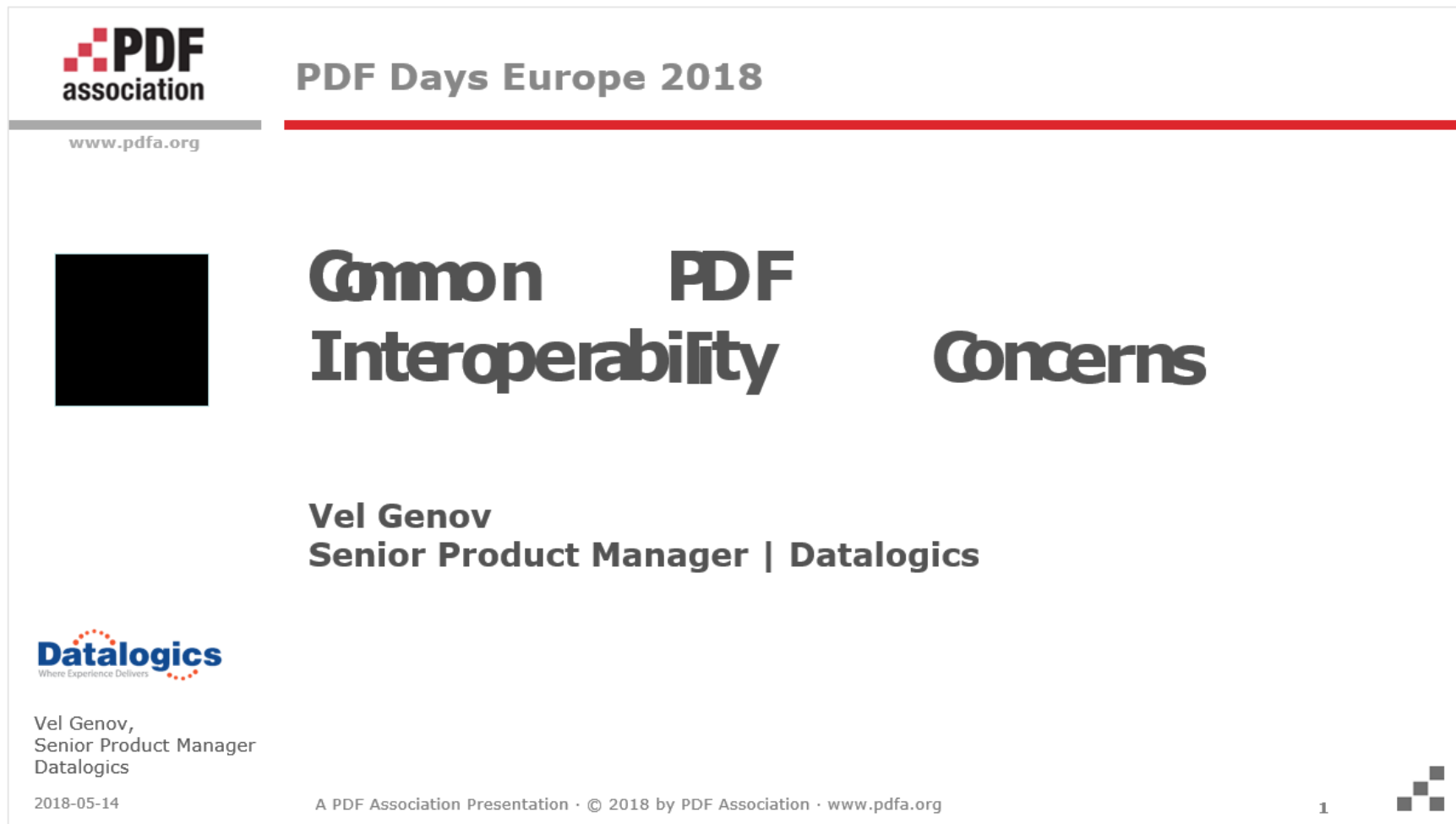
When a font is not embedded, it's up to the PDF processor to find a substitute font

The results can sometimes look like this:

Does this text look ok to you?



What Went Wrong Here?



PDF
association

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PDF Days Europe 2018

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Datalogics
Where Experience Delivers

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Know the shortcomings of your tools

Screen files

- *When they first enter your workflow*
- *When they exit your workflow*

Convert files for maximum compatibility



Thank you!

Any questions?

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Twitter: [@DatalogicsInc](https://twitter.com/DatalogicsInc)



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