



Ghent
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Why are you still using a 20-year-old standard? Stop that!

David van Driessche, Christian Blaise

Executive Director & co-chair Specifications Subcommittee,
Marketing Officer

David

- Started working at Enfocus in 1996
(Tailor, PitStop...)
- Helped to start the Ghent Workgroup in June 2002
- Co-founded Gradual Software in 2004
(Switch)
- CTO at Four Pees from 2008
(working with callas software, axaio software,
Elpical, InSoft...)

Christian

- 30+ years of experience in several companies and roles:
 - bleuprocess (Founder & owner)
 - agileStreams, now Four Pees France (Founder & CEO)
 - Gap Systems (Implementation Consultant, then COO)
 - Enfocus (International Sales Account Manager)
 - Nestlé (eBusiness Project Manager & Graphic Chain Expert)
 - Société Alsacienne d'Aluminium, now AMCOR (Prepress Manager)
- Currently serves as Head of Customer Success at Four Pees



Michael Jahn
Are you for real? PDF/x-4 works perfectly for 99% of all submissions
5 sem J'aime Répondre



David van Driessche
PDF/X-4 isn't 20 years old yet, Michael, and it's what we're promoting. It's PDF/X-1a we don't like...
5 sem J'aime Répondre



Michael Jahn
David van Driessche - most of our customers don't even get PDF/X-anything.
5 sem J'aime Répondre



Eddy Hagen · 1st
Research & Funding @ VIL | After hours: print industry provo...
2w ·

Move over PDF/X-1a! We had good times, but it's time to move on. In case you didn't see it yet, the [Ghent Workgroup](#) has an important webinar later this month. On why the printing industry should move later on from PDF/X-1a as the preferred standard for digital data exchange. In my article, I share some of the reason why we need to move on... An important one from my side: being able to use your digital presses to the full potential.

[#printing](#) [#pdf](#) [#design](#)



Stuart Nimmo (He/Him) · 2nd
Creating magical bespoke print which creates personal physi...
2w ...
Yes - 30 years of PDF... Changed the world of print, from analogue to digital properly. Yes agree we need to move it forward, we have some very dubious PDF's presented to us as printers these days, and anyone in the studio hears me grizzling at the substandard files.



Paul Sherfield (He/Him) · 2nd
Founder and Owner, The Missing Horse Consultancy Ltd and...
2w ...

I believe that changing to a PDF x4 format should be encouraged but with some caveats:

1. The colour space should be chosen CMYK profile rather than depend on the PSP to convert RGB images to the PDF CMYK output. This is because the PSP may use differing colour management settings in their PDF workflow for image conversion, rendering intents and BPC being come to mind.
2. The PSP must have and use the latest version of the Adobe PDF Print Engine, or similar, within their Ctp workflow or DFE. Otherwise PDF X4 features such as transparency may not be processed correctly.

So to sum up, if changing to PDF X4 from PDF X1a a conversation with your PSP will be needed.



Dario Zannini (He/Him) · 2nd
Prepress Man - /dario/
3w ...
Since RIPs no longer had problems with transparencies, I always suggested sending me PDF 1.4. When colour management was no longer an issue, I also suggested embedding ICC profiles in the layout photos and the final PDF.



Luis de la Hoz · 2nd
Gerente Artes Gráficas Luis de la Hoz
3w · [+ Follow](#)

Sigo recibiendo muchos pdf/x-1a:2001 (algo que puedo entender porque se supone que es con el que tenemos/tienen menos "sorpresas de impresión").

Animo a que empiecen a usar el pdf/x-4:2008, ya que permite colores adicionales, perfiles ICC y la inclusión de elementos como capas y transparencias. Un pequeño salto, porque ya sabemos que hay pdf/x más actuales, pero no todos los rips los aceptan.

Ah!, y por favor, a la hora de exportar, seleccionar en "conversión de color": Convertir a destino (conservar valores).

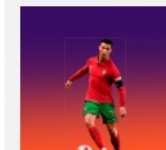
A ver si esto le llega a algunos de mis clientes :)

[#pdf](#) [#preimpresión](#) [#artesfinales](#) [#artesgráficas](#) [#diferenciasentrep](#)



Guillermo Carbajal Alcazar · 1st
Children's Illustrator - Digital Retoucher - Freelance Graphic ...
3w ...

Tienes mucha razón Luis, durante años trabajé con el PDF/x-1a:2001 en teoría por que evitaba muchos errores, pero hace ya unos años atrás empecé a detectar en el mas impresoras laser, al procesar el PDF en esta versión generaba en las imágenes con transparencia o formas orgánicas con fondo transparente, unas líneas blancas detectando los bordes del área y la imagen no estaba girada y estaba en Adobe Illustrator (Error que si pasaba en versiones antiguas de CorelDraw), investigando y probando encontré que la solución era el PDF/x-4:2008, comparto una imagen de referencia para que se entienda al problema que detecte con la versión PDF/x-1a, que pases un Feliz Año 2024.



[See translation](#)

A brief history of PDF/X and derived standards



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GWG 2022



GWG 1v4



PDF (ISO 32.000)



PDF/X-1a

1.3

CMYK, gray,
spotcolor

No transparency

PDF/X-4

1.6

All color-managed
color spaces

Live transparency

Layers

JPEG-2000
compression

PDF/X-6

2.0

Page-based output
intents

Dpart information

CxF information

Object-based black-
point compensation

Additional colorant
information

Evolution driven by RIP technology



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RIP technology

- The RIP (Raster Image Processor) is in charge to convert the original PDF into a raster image that the platesetter or printing machine can understand
- Older RIPs had to convert the PDF into a PostScript file first
 - As PostScript does not understand transparency, file has to be flattened during the conversion from PDF to PostScript, using the CPSI (Configurable PostScript Interpreter)
- Modern RIPs, such as APPE (Adobe PDF Print Engine)-based or Harlequin-based can directly process the PDF
 - They are able to honor modern features of PDF natively

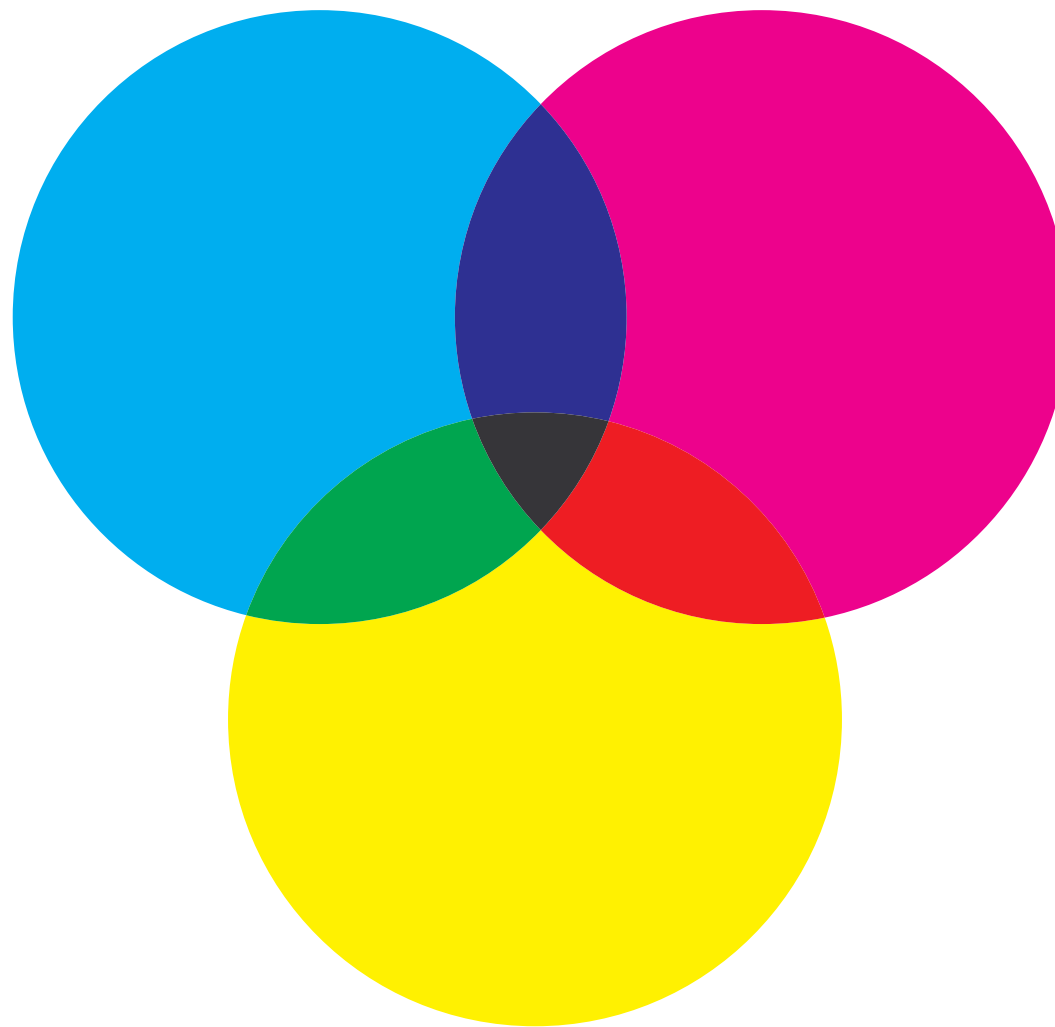
Transparency flattening

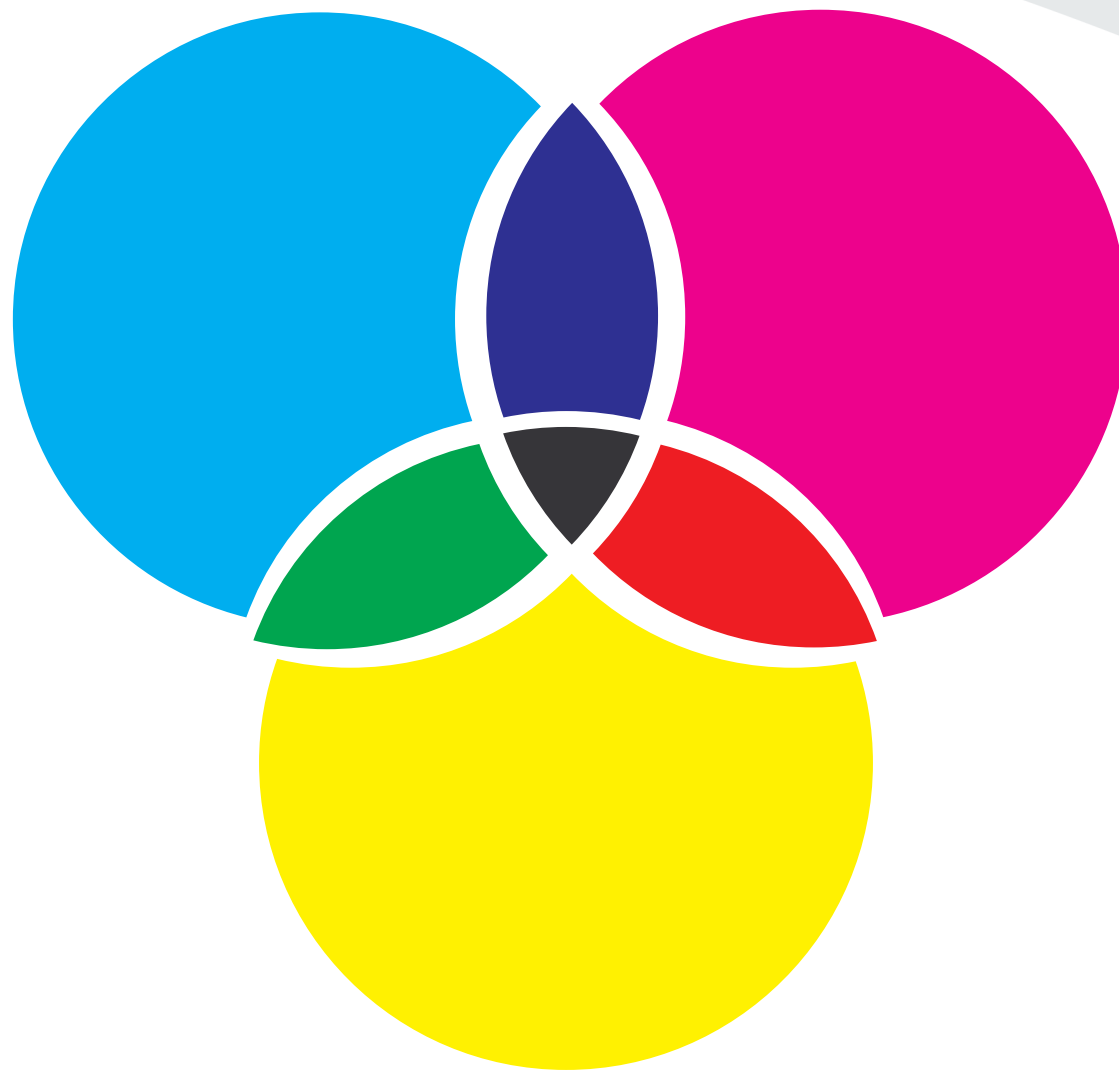


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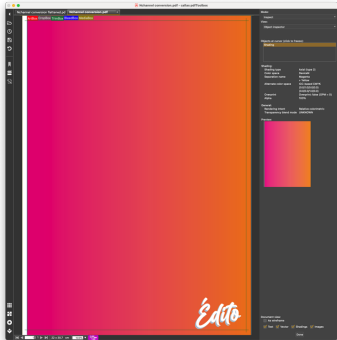




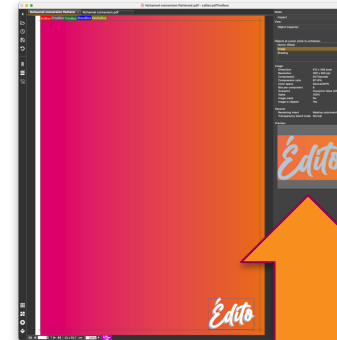
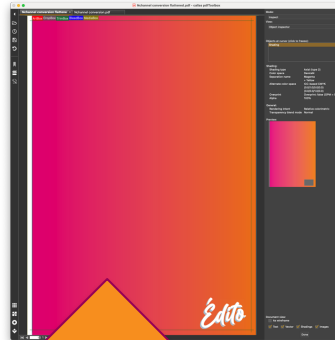


Penguins
are the
best!

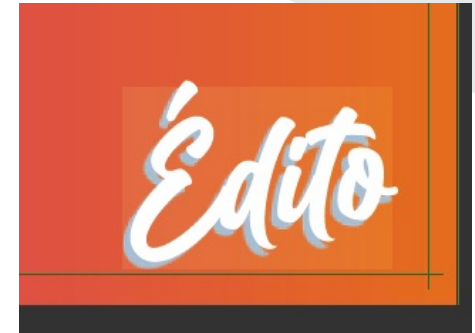
Original



Flattened



Result



Shading:

Shading type	Axial (type 2)
Color space	DeviceN
Separation name	Magenta + Yellow
Alternate color space	ICC-based CMYK (0.0/1.0/0.0/0.0) (0.0/0.0/1.0/0.0)
Overprint	Overprint: false (OPM = 0)
Alpha	100%

Image:

Dimension	512 x 346 pixel
Resolution	300 x 300 ppi
Compression	DCTDecode
Compression ratio	97.14%
Color space	DeviceCMYK
Bits per component	8
Overprint	Overprint: false (OPM = 1)
Alpha	100%
Image mask	No
Image is clipped	Yes

Problems

- It complicates the PDF files
 - Makes the PDF file bigger in size
 - Makes it more difficult to print
- It reduces editability
- It can cause alignment issues (white lines)
- It can cause color issue (text / vector vs image)
- NO – flattening IS NOT the same as ripping.

Modern features



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Modern features of PDF

- Live transparency
 - Almost every file contains some sort of transparency now!
- Layers
 - This is useful to separate content
 - This has allowed to add automation to the workflow
 - This is needed for the ISO 19593-1 standard (processing steps)

Modern features of PDF

- JPEG2000 compression
 - This allows to decrease the file size with a higher quality than JPEG (can even be non destructive)
- Color-managed images
 - This allows to keep the best color accuracy you can get with images using extended gamut (6 or 7 colors for example)

Modern features of PDF

- No question!
You are going to get PDF files that contain
 - Live transparency
 - Layers
 - JPEG2000
 - Color-managed images
- Everything here will be lost when converting these PDFs into a PDF/X-1a standard!

Risks, risks, risks



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I want to use PDF/X-4!
But I have seen files where...

You have my deepest sympathy.

Now use PDF/X-4.

You are a printer...

Good prints

Bad prints

Communication and testing



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Communication

- Communication between stakeholders of the chain is KEY!
- Of course, you're not going to switch from PDF/X-1a to PDF/X-4 over the weekend without telling anyone and expecting that this will solve ALL of your issues!

Testing

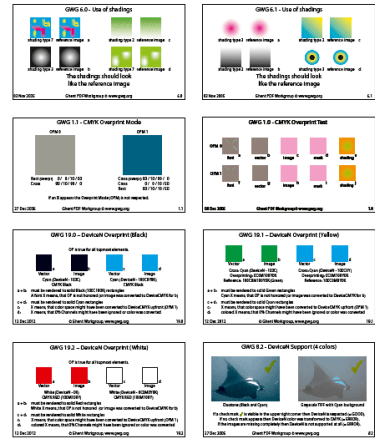
- To ensure that your workflow (and the workflow of the other stakeholders, upstream and downstream) is behaving correctly, you have to make tests to see if everything is in order
- How?
 - The Ghent Workgroup provides you the best tool to test this: the Ghent PDF Output Suite
 - Available for FREE here: <https://gwg.org/gos5/>

The Ghent PDF Output Suite

Ghent Workgroup Ghent PDF Output Suite 5.0 – CMYK Conformance Level 1

The pages contain test patches with essential features of PDF/X-4 (ISO 15930-7). Errors are identified either with a cross or by a deviation from the integrated reference images.

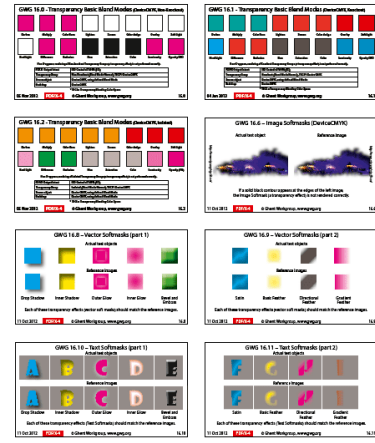
Personalized test pages are required for Ghent PDF Output Suite 5.0 Conformance Certification!



Ghent Workgroup Ghent PDF Output Suite 5.0 – CMYK Conformance Level 1

Die Seiten enthalten Testpatches mit wesentlichen Merkmalen von PDF/X-4 (ISO 15930-7). Fehler sind mit einem Kreuz oder durch eine Abweichung von integrierten Referenzbildern zu erkennen.

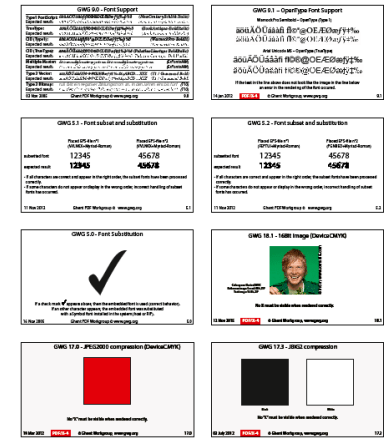
Personalisierte Testseiten sind für die Ghent PDF Output Suite 5.0 Conformance Certification erforderlich!



Ghent Workgroup Ghent PDF Output Suite 5.0 – CMYK Conformance Level 1

Les pages contiennent des patches de test comprenant des fonctionnalités essentielles de PDF/X-4 (ISO 15930-7). Les erreurs sont identifiées soit par une croix, soit selon une déviation par rapport aux images de référence.

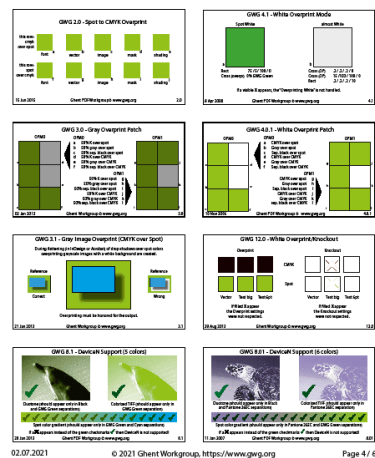
Des pages de test personnalisées sont requises pour la certification de conformité de Ghent PDF Output Suite 5.0!



Ghent Workgroup Ghent PDF Output Suite 5.0 – SPOT Conformance Level 1

De pagina's bevatten test patches met essentiële PDF/X-4 (ISO 15930-7) features. Fouten worden aangevuld met ofwel een kruis of een afwijking met het geïntegreerde referentiebeeld.

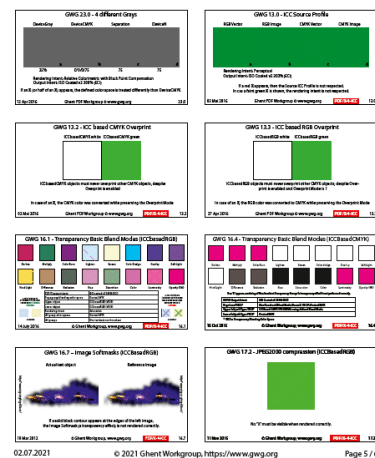
Gepersonaliseerde testpagina's zijn vereist voor Ghent PDF Output Suite 5.0 Conformance Certification!



Ghent Workgroup Ghent PDF Output Suite 5.0 – ICC/CMS Conformance Level 2

Las páginas contienen pruebas de prueba con características esenciales de PDF/X-4 (ISO 15930-7). Los errores se identifican con una cruz o con una desviación de las imágenes de referencia integradas.

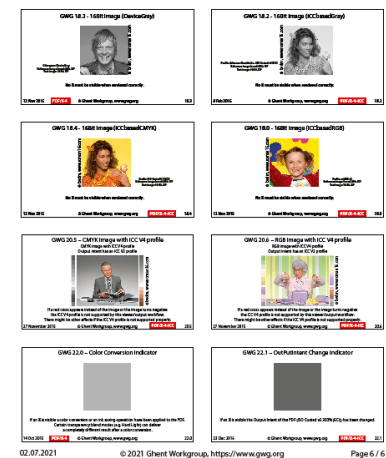
Las páginas de prueba personalizadas son necesarias para la certificación de conformidad de Ghent PDF Output Suite 5.0!



Ghent Workgroup Ghent PDF Output Suite 5.0 – ICC/CMS Conformance Level 2

Le pagine contengono patch di prova con caratteristiche essenziali di PDF/X-4 (ISO 15930-7). Gli errori sono identificati da una croce o da una deviazione dalle immagini di riferimento integrate.

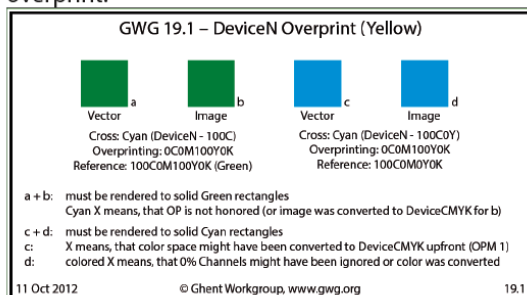
Le pagine di prova personalizzate sono necessarie per la certificazione di conformità di Ghent PDF Output Suite 5.0!



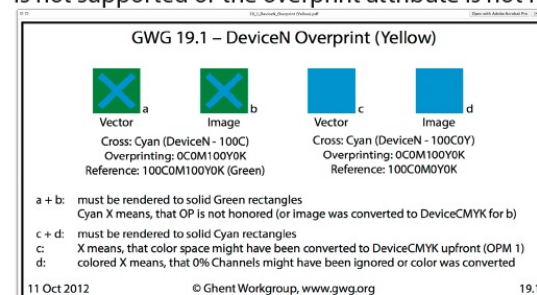
The Ghent PDF Output Suite

- The Ghent PDF Output Suite allows you to test CMYK, SPOT and CMS parts of your workflow
- Each patch comes with a description of the purpose and explanation of the (possible) errors
- Easy to use!

Two green and two cyan squares indicate correct rendering of DeviceN with overprint.



Blue crosses on the left side indicate that DeviceN overprint is not supported or the overprint attribute is not honored.

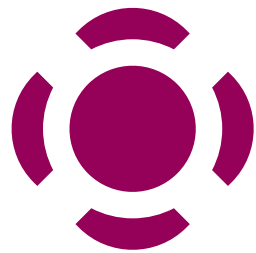


Questions?



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