Ghent Workgroup PDF Specification

Official name: GWG2012_CMYK
Based on PDF/X-4:2010
Process color spaces: CMYK only · 2012 version

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Table of Contents

1 Introduction

1.1 Goal of this document

This document describes the requirements that a PDF must comply with to follow the GWG2012_CMYK specification.

The GWG2012_CMYK specification is a specification built upon current ISO standards (PDF/X-4) but adds a number of specific requirements for different market segments. Each set of requirements that are specific to a market segment is called a "Variant".

1.2 How to use this document

The description of the requirements in this document can be divided into 4 parts:

1. Terms and definitions
2. A description of each requirement
3. List of recommended iCC profiles
4. Each variant with an overview of its requirements

To implement or use a specific Variant, it's best to go to the overview of that Variant in chapter 6. To understand the details of a specific requirement, find that requirement with the exact same name in chapter 4. When a requirement uses a specific term, its definition is in chapter 3.

If you go straight to chapter 4, which lists all requirements, you will see that some requirements are contradictory to each other. This is because some requirements are never part of the same Variant, but are specific for different Variants.

1.3 Compliancy

A PDF file that meets all requirements listed for a specific variant in Section 6 shall be considered to be conforming to that variant. When talking about conformance, the variant family and the variant name shall be specified.

Example: This PDF complies to GWG2012_CMYK – GWG_MagazineAds_2012

2 Notations

PDF operators, PDF keywords, the names of keys in PDF dictionaries, and other predefined names are written in a bold sans serif type font; for example, the key **Trapped**.

Operands of PDF operators or values of dictionary keys are written in an italic sans serif font; for example the *False* value for the **Trapped** key.

3 Terms and Definitions

3.1 Print elements

Print elements are those elements (graphics objects [ISO 32000-1:2008, 8.2]) intended for final print reproduction.

3.2 Print content

Print Content consists of print elements that do not lie completely outside the BleedBox, or if no BleedBox is defined, outside the TrimBox.

3.3 Path elements

Path elements define arbitrary shapes made up of straight lines, rectangles, and cubic Bézier curves. They shall be used to draw lines, define the shapes of filled areas, and specify boundaries for clipping other graphics. [ISO 32000-1:2008, 8.5]

A path element shall be a sub-type of print content.

3.4 Text elements

Text elements are elements that take a string operand and paint the corresponding glyphs, using the current font, other text state parameters and applicable parameters in the graphics state. [ISO 32000-1:2008, 9.4]

A text element shall be a sub-type of print content.

3.5 Image elements

Image elements are elements representing sampled images. [ISO 32000-1:2008, 8.9]

An image element shall be a sub-type of print content.

3.6 Continuous-Tone Image element

Continous-Tone images are Image elements whose **Image** dictionary contains a **BitsPerComponent** key with a value greater than 1.

3.7 1-Bit Image element

1-bit images are Image elements whose **Image** dictionary contains a **BitsPerComponent** key with a value equal to 1 regardless, whether an **ImageMask** key with a value of *true* is present in the **Image** dictionary or not.

3.8 Image Mask element

Image masks are Image elements whose **Image** dictionary contains a **BitsPerComponent** key with a value equal to 1 and an **ImageMask** key with a value of *true*.

3.9 White objects

Any Path, Text or Image Mask element using the DeviceGray, DeviceCMYK, Separation or DeviceN color spaces in the following way:

- **DeviceCMYK** with a value of *0.0,0.0,0.0,0.0*
- **Separation Black** with a value of *0.0*
- **DeviceN** where the value of all colorants is *0.0* - ignoring **None** components
- if not noted otherwise: **DeviceGray** with a value of *1.0*

3.10 100% Black objects

Any Path, Text or Image Mask element using the DeviceGray, DeviceCMYK, Separation or DeviceN color spaces in the following way:

- **DeviceCMYK** with a value of *0.0,0.0,0.0,1.0*
- **Separation Black** with a value of *1.0*
- **DeviceN** using the **Black** colorant with a value of *1.0*, any other colorants - ignoring **None** components - all with a value of *0.0*
- **DeviceGray** with a value of *0.0*

For the purpose of this specification, objects used with any of the following are never considered 100% Black:

- blend mode other than *Normal*
- **CA** or **ca** value in an ExtGState dictionary other than *1.0*
- inline images (unless their **ImageMask** entry is *true*)
- Image XObject (unless their **ImageMask** entry is *true*)
- Shading Patterns (aka smooth shades)

3.11 Effective line width

Line width is defined by the line width parameter of the **graphics state** (ISO 32000-1:2008, 8.4.1). Effective line width for all path elements except the special case defined in the next paragraph shall be calculated by combining the value of the graphics state parameter with the current transformation matrix (CTM).

It is possible to construct a path using either the line ('l') or rectangle ('re') path constructor operators (ISO 32000-1:2008, 8.5.2) that would technically be considered a rectangle but visually appears as a line due to its small height or width. If such a path element of rectangular shape is using the same color space and color values for stroke and fill, then the effective line width shall be calculated from the smallest dimension of fill and stroke combined (height or width) of the element, combined with the CTM. If such a path element of rectangular shape has no stroke but is filled instead, the effective line width shall be calculated from the smallest dimension (height or width) of the element combined with the CTM.

3.12 Effective image resolution

Effective image resolution is defined by the **Width** and **Height** keys of the Image dictionary combined with the current transformation matrix. If the effective image resolution differs between the Width and Height directions, the smaller of the two values applies.

3.13 Effective font size

Effective font size is defined by the font size parameter of the text state (ISO 32000-1:2008, 9.3.1) and the text matrix (ISO 32000-1, 9.4.2) combined with the current transformation matrix.

3.14 Equality of ICC profiles

ICC profiles shall be treated as identical if MD5 hash values for the two profiles are the same. MD5 values are read from the value of the Profile ID field within each profile, if present and not set as zero. If no MD5 value is included in a profile then the value shall be calculated following the methodology set out in ISO 15076, 7.2.18.

3.15 Comparing for equal numeric values

When comparing numeric values the following rounding rules shall be applied. In this context the term "digit" applies to the respective post-decimal place.

- Increase the last allowed digit by 1 if the next digit is 5 or more
- Leave the last allowed digit the same if the next digit is less than 5

The number of allowed digits depends on the type of object:

- Text element related values are rounded to 1 digit
- Image element related values are rounded to 0 digits
- Path element related values are rounded to 3 digits

Example: 2 text elements with a point size of 5.45 (rounded to 5.5) and 5.44 (rounded to 5.4) are defined as 'not equal'. But 2 text elements with a point size of 5.45 (rounded to 5.5) and 5.54 (rounded to 5.5) are defined as 'equal'.

3.16 Checking of optional content

If the use of optional content is not further restricted by the requirements for a given Variant all print content defined as visible per the Default state (value of the **D** key in the **OCProperties** dictionary) have to to be checked.

Note: Checking of print content only visible in other optional content states has to be defined between the 2 parties (creation and reception).

4 Requirements

Note: Only requirements defined in the list for a given variant have to be met.

4.1 ISO Compliancy

A PDF file shall be compliant to the ISO standard as defined in the Variants' table.

Note 1: The other requirements of this document never discard any of the requirements of the applicable PDF/X standard, rather to the contrary: a valid PDF file shall always comply with all of the PDF/X requirements and shall in addition also comply with the GWG requirements for the respective Variant.

Example: compression using LZW is not allowed even if it is not explicitly mentioned in this document since it is prohibited by PDF/X.

Note 2: It is a common understanding that XMP validation on a PDF/X-4 file is only done on document level XMP and not XMP present elsewhere in the PDF file, e.g. for a single image object.

4.2 PDF/X Output Intent

The PDF/X output intent in a PDF file shall not contain an ICC profile as its destination profile which is not in the "List of recommended ICC profiles".

Note: It is advised that any validation report contain a message pointing to the list of recommended ICC profiles as defined in the "5. List of recommended ICC profiles".

4.3 Page Scaling

No page dictionary in the PDF shall contain the **UserUnits** key.

4.4 Crop Box

If a **CropBox** key is present in any page dictionary, it shall have the same value as the **MediaBox**.

4.5 Page Size and Orientation

The effective size defined by the **TrimBox** key shall be equal for all pages of a PDF file. If a **Rotate** key is present in a page dictionary, its value shall be *0*.

4.6 Empty Pages

A PDF file shall not contain a page which does not contain any print content at all.

4.7 Number of Pages

The number of pages in a PDF file shall be exactly one (1).

4.8 Overprint Grayscale

Any print content defined in the color space **DeviceGray** shall not be set to overprint. This means it shall not have a graphic state parameter **OP** or **op** with a value of *true*.

Any 100% Black elements defined in the color space **DeviceGray** covered by requirement 4.12 and 4.14 should be excluded.

4.9 Overprint White Text

Any white text element shall not be set to overprint. This means it shall not have a graphic state parameter **OP** or **op** with a value of *true*.

4.10 Overprint White Paths

Any white path element shall not be set to overprint. This means it shall not have a graphic state parameter **OP** or **op** with a value of *true.*

4.11 Overprint 100% Black Text

Any 100% black text element whose effective text font size is smaller than 12.0 shall have a graphic state parameter **op** with a value of *true* if it is filled and **OP** with a value of *true* if it is stroked.

If the current color space is **DeviceCMYK** then the value of the **OPM** key of the graphic state parameter dictionary shall be *1*.

If the current color space is DeviceGray, then this requirement shall not apply at all.

4.12 Overprint 100% Black Text defined in DeviceGray

Any 100% black text element whose effective text font size is smaller than 12.0, shall not be defined in the color space **DeviceGray.**

4.13 Overprint Thin 100% Black Line

Any 100% black path element whose effective line width is less than 2.0 shall have a graphic state property **OP** with a value of *true* if it is stroked and **op** with a value of *true* if it is filled.

If the current color space is **DeviceCMYK** then the value of the **OPM** key of the graphic state parameter dictionary shall be *1*.

If the current color space is DeviceGray, then this requirement shall not apply at all.

4.14 Overprint Thin 100% Black Line defined in DeviceGray

Any 100% black path element whose effective line width is less than 2.0 shall not be defined in the color space **DeviceGray**.

4.15 Font Courier

Any text element which is not completely outside the **TrimBox** shall not use a font whose name is exactly ‘Courier’.

Note: Font names such as 'Courier New' are not prohibited.

4.16 Rich Black Text

If the value for the Black color component of a text element using the color space **DeviceCMYK** or the color space **DeviceN** is equal to or larger than the value defined for a specific Variant (K), then the sum of all process color component values for that text element shall not have a value that is larger than the value defined for that specific Variant (T).

Note: If the current color space is DeviceN, this requirement only applies if the **DeviceN** color space contains at least two process color components, with one of these process color components being **Black**.

4.17 Small Text

A PDF file shall not contain text elements that are smaller than (A) the minimum text font size for text elements colored with 1 colorant or (B) the minimum text font size for text elements colored with more than 1 colorant as specified in the table of a specific Variant.

Note: The text font size is expressed in points, which is equivalent to units in PDF user space.

4.18 Effective Line Width

A PDF file shall not contain path elements with an effective line width smaller than (A) the minimum effective line width for path elements colored with 1 colorant or (B) the minimum effective line width for path elements colored with more than 1 colorant as specified in the table of a specific Variant.

4.19 Use of Spot Colors

A PDF file shall not contain more than the maximum number, for the specified Variant, of named colorants in the **Separation** or **DeviceN** color spaces. The colorant names *Black, Cyan, Magenta, Yellow, All* and *None* are not spot colors and as a consequence are to be not counted.

4.20 Spot Color Naming

A PDF file shall not contain two or more color component names for spot colors in the **Separation** or **DeviceN** color spaces in the PDF whose names are equivalent.

Equivalence shall be determined in the following manner:

1) The name object(s) contained in the second element of the **Separation** or **DeviceN** colorspace array shall be interpreted (after expansion of NUMBER SIGN sequences, if any) as a UTF-8 string.

2) The string shall be tokenized into three components - a prefix, a number, and a suffix. The number being a sequential set of values from 30h (DIGIT ZERO) through 39h (DIGIT NINE), with prefix defined as any characters preceding it and the suffix as any characters following.

3) The combination of prefix and number shall be used in a case-insensitive string comparison. The suffix shall be ignored.

If the color component name for a spot color does not contain at least one digit, this requirement shall not apply at all.

4.21 Ambiguous Spot Color

A PDF file shall not use Colorspace dictionaries of type **Separation** that are ambiguous. Ambiguity is defined as having a different name, but equal alternate color representation, and shall be determined as specified in the PDF/X-4 standard.

Note: This type of ambiguity is already prohibited by PDF/X-4.

4.22 Separation Color 'All'

Any print content which is not completely outside the **TrimBox** shall not be defined in **Separation** color space "*All*".

4.23 Total Ink Area Coverage

The sum of all **CMYK** process color components of the rendered page appearance shall not exceed the averaged value (A) within any square area (B) on the page content area inside the **BleedBox,** or if no **BleedBox** is defined, inside the **TrimBox**.

Note: This implies that all aspects of a PDF file, like overprinting or transparency are being honored.

4.24 ICC v2 Profile

The major version number of any ICC profile used in a PDF file, shall not be higher than 2 for a specific variant.

Only the major version number of an ICC profile shall be evaluated. The minor version number shall be ignored.

4.25 Classic Delivery Method

A PDF file shall not contain any print content that uses any of the following color spaces. These color spaces shall not appear as direct color spaces or as an alternate color space:

- **DeviceRGB**
- **ICCbasedRGB**
- **CalRGB**
- **ICCbasedGray**
- **CalGray**
- **ICCbasedCMYK**
- **Lab**

4.26 Transparency Blend Color Space

Any explicitly defined transparency blend color space shall be **DeviceCMYK**.

4.27 Image Resolution for Grayscale and Color Images

The effective resolution of continous-tone image elements shall not be lower than or equal to the value defined in the table specific for each Variant unless its width or height is 64 pixels or less. The effective image resolution is expressed in Pixels Per Inch (ppi).

Any continous-tone image covered by requirement 4.29 should be excluded.

4.28 Image Resolution for 1-bit Images

The effective resolution of 1-bit image elements shall not be lower than or equal to the value defined in the table specific for each Variant unless its width or height is 64 pixels or less. The effective image resolution is expressed in Pixels Per Inch (ppi).

4.29 Single Image Page

If a PDF page contains only one (1) continuous-tone image with a bounding box of at least the size defined by the **TrimBox** and no other print content, then that image shall not have an effective resolution lower than the values defined in the table specific for each Variant. The effective image resolution value is expressed in Pixels Per Inch (ppi).

4.30 Optional Content

If the document catalog dictionary contains an optional content properties dictionary (**OCProperties**) entry, it shall not contain a **Configs** key.

Note: optional content hidden according to the optional content state of the Default (**D**) key in the OCProperties dictionary is not to be rendered.

Note: this requirement means that only one view, being the default view as defined per the **D** entry in **OCProperties**, is allowed. If other views than the default view are defined by means of the **Configs** entry, the severity level in the Variant's table will define whether this is to be flagged as an error or warning.

5 List of recommended ICC profiles

5.1 MagazineAds

ICC Profiles
ISOcoated_v2_eci.icc
ISOcoated_v2_eci_300.icc
ISOuncoated.icc
ISOuncoatedyellowish.icc
ISOwebcoated.icc
GRACoL2006_Coated1v2.icc
SWOP2006_Coated3v2.icc
SWOP2006_Coated5v2.icc
JapanColor2001Coated.icc
JapanWebCoated.icc
SC_paper_eci.icc
PSRgravureLWC.icc
PSRgravureMF.icc
PSRgravureSC.icc
PSRgravureHWC.icc
CoatedFOGRA39.icc
UncoatedFOGRA29.icc
WebCoatedFOGRA28.icc
PSO_SNP_Paper_eci
PSO_MFC_Paper_eci
PSO_Uncoated_ISO12647_eci
PSO_LWC_Improved_eci
PSO_LWC_Standard_eci
PSO_Uncoated_NPscreen_ISO12647_eci
PSO_INP_Paper_eci.icc
PSR_LWC_PLUS_V2_PT.icc
PSR_LWC_STD_V2_PT.icc
PSR_SC_STD_V2_PT.icc
PSR_SC_PLUS_V2_PT.icc

5.2 NewspaperAds, WebCmykNews

ICC Profiles
ISOnewspaper26v4.icc
JapanColor2002Newspaper.icc

5.3 WebCmyk, WebSpot

ICC Profiles
ISOcoated_v2_eci_300.icc
ISOwebcoated.icc
SC_paper_eci.icc
WebCoatedFOGRA28.icc
SWOP2006_Coated3v2.icc
SWOP2006_Coated5v2.icc
JapanWebCoated.icc
PSRgravureLWC.icc
PSRgravureMF.icc
PSRgravureSC.icc
PSRgravureHWC.icc
PSO_SNP_Paper_eci
PSO_MFC_Paper_eci
PSO_LWC_Improved_eci
PSO_LWC_Standard_eci
PSO_INP_Paper_eci.icc
PSR_LWC_PLUS_V2_PT.icc
PSR_LWC_STD_V2_PT.icc
PSR_SC_STD_V2_PT.icc
PSR_SC_PLUS_V2_PT.icc

5.4 SheetCmyk, SheetSpot

ICC Profiles
ISOcoated_v2_eci.icc
ISOcoated_v2_eci_300.icc
ISOuncoated.icc
ISOuncoatedyellowish.icc
GRACoL2006_Coated1v2.icc

JapanColor2001Coated.icc
CoatedFOGRA39.icc
UncoatedFOGRA29.icc
PSO_Coated_NPscreen_ISO12647_eci
PSO_Uncoated_ISO12647_eci
PSO_Uncoated_NPscreen_ISO12647_eci

6 Variants

6.1 GWG_MagazineAds_2012

Requirement	Severity	Value
ISO Compliancy (4.1)	Error	PDF/X-4:2010
PDF/X Output Intent (4.2)	Warning	See "List of recommended ICC Profiles"
Page Scaling (4.3)	Error	
Crop Box (4.4)	Error	
Empty Pages (4.6)	Error	
Number of Pages (4.7)	Error	
Overprint Grayscale (4.8)	Warning	
Overprint White Text (4.9)	Error	
Overprint White Paths (4.10)	Warning	
Overprint 100% Black Text (4.11)	Warning	
Overprint 100% Black Text defined in DeviceGray (4.12)	Warning	
Overprint Thin 100% Black Line (4.13)	Warning	
Overprint Thin 100% Black Line defined in DeviceGray (4.14)	Warning	
Font Courier (4.15)	Warning	
Rich Black Text (4.16)	Warning	K=0.85 T=2.8
Small Text (4.17)	Warning	A=5.0 B=9.0
Effective Line Width (4.18)	Warning	A=0.124 B=0.25
Use of Spot Colors (4.19)	Error	0
Separation Color 'All' (4.22)	Warning	
Total Ink Area Coverage (4.23)	Warning	A=305% B=15mm
ICC v2 Profile (4.24)	Error	
Classic Delivery Method (4.25)	Error	
Transparency Blend Color Space (4.26)	Error	Classic
Image Resolution for Grayscale and Color Images (4.27)	Error Warning	149 ppi 224 ppi
Image Resolution for 1-bit Images (4.28)	Error Warning	549 ppi 799 ppi
Single Image Page (4.29)	Error Warning	149 ppi 450 ppi
Optional Content (4.30)	Error	

6.2 GWG_NewspaperAds_2012

Requirement	Severity	Value
ISO Compliancy (4.1)	Error	PDF/X-4:2010
PDF/X Output Intent (4.2)	Warning	See "List of recommended ICC Profiles"
Page Scaling (4.3)	Error	
Crop Box (4.4)	Error	
Empty Pages (4.6)	Error	
Number of Pages (4.7)	Error	
Overprint Grayscale (4.8)	Warning	
Overprint White Text (4.9)	Error	
Overprint White Paths (4.10)	Warning	
Overprint 100% Black Text (4.11)	Warning	
Overprint 100% Black Text defined in DeviceGray (4.12)	Warning	
Overprint Thin 100% Black Line (4.13)	Warning	
Overprint Thin 100% Black Line defined in DeviceGray (4.14)	Warning	
Font Courier (4.15)	Warning	
Rich Black Text (4.16)	Warning	K=0.85 T=2.2
Small Text (4.17)	Warning	A=8.0 B=10.0
Effective Line Width (4.18)	Warning	A=0.124 B=0.25
Use of Spot Colors (4.19)	Error	1
Spot Color Naming (4.20)	Warning	
Ambiguous Spot Color (4.21)	Error	
Separation Color 'All' (4.22)	Warning	
Total Ink Area Coverage (4.23)	Warning	A=245% B=15mm
ICC v2 Profile (4.24)	Error	
Classic Delivery Method (4.25)	Error	
Transparency Blend Color Space (4.26)	Error	Classic
Image Resolution for Grayscale and Color Images (4.27)	Error Warning	99 ppi 149 ppi
Image Resolution for 1-bit Images (4.28)	Error Warning	549 ppi 799 ppi
Single Image Page (4.29)	Error Warning	99 ppi 450 ppi
Optional Content (4.30)	Error	

6.3 GWG_SheetCmyk_2012

Requirement	Severity	Value
ISO Compliancy (4.1)	Error	PDF/X-4:2010
PDF/X Output Intent (4.2)	Warning	See "List of recommended ICC Profiles"
Page Scaling (4.3)	Error	
Crop Box (4.4)	Error	
Page Size and Orientation (4.5)	Warning	
Empty Pages (4.6)	Warning	
Overprint Grayscale (4.8)	Warning	
Overprint White Text (4.9)	Error	
Overprint White Paths (4.10)	Warning	
Overprint 100% Black Text (4.11)	Warning	
Overprint 100% Black Text defined in DeviceGray (4.12)	Warning	
Overprint Thin 100% Black Line (4.13)	Warning	
Overprint Thin 100% Black Line defined in DeviceGray (4.14)	Warning	
Font Courier (4.15)	Warning	
Rich Black Text (4.16)	Warning	K=0.85 T=2.8
Small Text (4.17)	Warning	A=5.0 B=8.0
Effective Line Width (4.18)	Warning	A=0.124 B=0.25
Use of Spot Colors (4.19)	Error	0
Separation Color 'All' (4.22)	Warning	
Total Ink Area Coverage (4.23)	Warning	A=320% B=15mm
ICC v2 Profile (4.24)	Error	
Classic Delivery Method (4.25)	Error	
Transparency Blend Color Space (4.26)	Error	Classic
Image Resolution for Grayscale and Color Images (4.27)	Error Warning	149 ppi 224 ppi
Image Resolution for 1-bit Images (4.28)	Error Warning	549 ppi 799 ppi

6.4 GWG_SheetSpot_2012

Requirement	Severity	Value
ISO Compliancy (4.1)	Error	PDF/X-4:2010
PDF/X Output Intent (4.2)	Warning	See "List of recommended ICC Profiles"
Page Scaling (4.3)	Error	
Crop Box (4.4)	Error	
Page Size and Orientation (4.5)	Warning	
Empty Pages (4.6)	Warning	
Overprint Grayscale (4.8)	Warning	
Overprint White Text (4.9)	Error	
Overprint White Paths (4.10)	Warning	
Overprint 100% Black Text (4.11)	Warning	
Overprint 100% Black Text defined in DeviceGray (4.12)	Warning	
Overprint Thin 100% Black Line (4.13)	Warning	
Overprint Thin 100% Black Line defined in DeviceGray (4.14)	Warning	
Font Courier (4.15)	Warning	
Rich Black Text (4.16)	Warning	K=0.85 T=2.8
Small Text (4.17)	Warning	A=5.0 B=8.0
Effective Line Width (4.18)	Warning	A=0.124 B=0.25
Use of Spot Colors (4.19)	Warning	0
Spot Color Naming (4.20)	Warning	
Ambiguous Spot Color (4.21)	Error	
Separation Color 'All' (4.22)	Warning	
Total Ink Area Coverage (4.23)	Warning	A=320% B=15mm
ICC v2 Profile (4.24)	Error	
Classic Delivery Method (4.25)	Error	
Transparency Blend Color Space (4.26)	Error	Classic
Image Resolution for Grayscale and Color Images (4.27)	Error Warning	149 ppi 224 ppi
Image Resolution for 1-bit Images (4.28)	Error Warning	549 ppi 799 ppi

6.5 GWG_WebCmyk_2012

Requirement	Severity	Value
ISO Compliancy (4.1)	Error	PDF/X-4:2010
PDF/X Output Intent (4.2)	Warning	See "List of recommended ICC Profiles"
Page Scaling (4.3)	Error	
Crop Box (4.4)	Error	
Page Size and Orientation (4.5)	Error	
Empty Pages (4.6)	Error	
Overprint Grayscale (4.8)	Warning	
Overprint White Text (4.9)	Error	
Overprint White Paths (4.10)	Warning	
Overprint 100% Black Text (4.11)	Warning	
Overprint 100% Black Text defined in DeviceGray (4.12)	Warning	
Overprint Thin 100% Black Line (4.13)	Warning	
Overprint Thin 100% Black Line defined in DeviceGray (4.14)	Warning	
Font Courier (4.15)	Warning	
Rich Black Text (4.16)	Warning	K=0.85 T=2.8
Small Text (4.17)	Warning	A=5.0 B=9.0
Effective Line Width (4.18)	Warning	A=0.124 B=0.25
Use of Spot Colors (4.19)	Error	0
Separation Color 'All' (4.22)	Warning	
Total Ink Area Coverage (4.23)	Warning	A=305% B=15mm
ICC v2 Profile (4.24)	Error	
Classic Delivery Method (4.25)	Error	
Transparency Blend Color Space (4.26)	Error	Classic
Image Resolution for Grayscale and Color Images (4.27)	Error Warning	149 ppi 224 ppi
Image Resolution for 1-bit Images (4.28)	Error Warning	549 ppi 799 ppi

6.6 GWG_WebSpot_2012

Requirement	Severity	Value
ISO Compliancy (4.1)	Error	PDF/X-4:2010
PDF/X Output Intent (4.2)	Warning	See "List of recommended ICC Profiles"
Page Scaling (4.3)	Error	
Crop Box (4.4)	Error	
Page Size and Orientation (4.5)	Error	
Empty Pages (4.6)	Error	
Overprint Grayscale (4.8)	Warning	
Overprint White Text (4.9)	Error	
Overprint White Paths (4.10)	Warning	
Overprint 100% Black Text (4.11)	Warning	
Overprint 100% Black Text defined in DeviceGray (4.12)	Warning	
Overprint Thin 100% Black Line (4.13)	Warning	
Overprint Thin 100% Black Line defined in DeviceGray (4.14)	Warning	
Font Courier (4.15)	Warning	
Rich Black Text (4.16)	Warning	K=0.85 T=2.8
Small Text (4.17)	Warning	A=5.0 B=9.0
Effective Line Width (4.18)	Warning	A=0.124 B=0.25
Use of Spot Colors (4.19)	Warning	0
Spot Color Naming (4.20)	Warning	
Ambiguous Spot Color (4.21)	Error	
Separation Color 'All' (4.22)	Warning	
Total Ink Area Coverage (4.23)	Warning	A=305% B=15mm
ICC v2 Profile (4.24)	Error	
Classic Delivery Method (4.25)	Error	
Transparency Blend Color Space (4.26)	Error	Classic
Image Resolution for Grayscale and Color Images (4.27)	Error Warning	149 ppi 224 ppi
Image Resolution for 1-bit Images (4.28)	Error Warning	549 ppi 799 ppi

6.7 GWG_WebCmykNews_2012

Requirement	Severity	Value
ISO Compliancy (4.1)	Error	PDF/X-4:2010
PDF/X Output Intent (4.2)	Warning	See "List of recommended ICC Profiles"
Page Scaling (4.3)	Error	
Crop Box (4.4)	Error	
Page Size and Orientation (4.5)	Error	
Empty Pages (4.6)	Error	
Overprint Grayscale (4.8)	Warning	
Overprint White Text (4.9)	Error	
Overprint White Paths (4.10)	Warning	
Overprint 100% Black Text (4.11)	Warning	
Overprint 100% Black Text defined in DeviceGray (4.12)	Warning	
Overprint Thin 100% Black Line (4.13)	Warning	
Overprint Thin 100% Black Line defined in DeviceGray (4.14)	Warning	
Font Courier (4.15)	Warning	
Rich Black Text (4.16)	Warning	K=0.85 T=2.2
Small Text (4.17)	Warning	A=8.0 B=10.0
Effective Line Width (4.18)	Warning	A=0.124 B=0.25
Use of Spot Colors (4.19)	Error	0
Separation Color 'All' (4.22)	Warning	
Total Ink Area Coverage (4.23)	Warning	A=245% B=15mm
ICC v2 Profile (4.24)	Error	
Classic Delivery Method (4.25)	Error	
Transparency Blend Color Space (4.26)	Error	Classic
Image Resolution for Grayscale and Color Images (4.27)	Error Warning	99 ppi 149 ppi
Image Resolution for 1-bit Images (4.28)	Error Warning	549 ppi 799 ppi