



**Ghent PDF
Workgroup**

Ghent Output Suite –v 3.0

Introduction

The Ghent Output Suite was created for users who process PDF files in the graphic arts industry, as an aid to determine whether their workflows are behaving as expected. We believe these patches can be used by end users of graphic arts equipment as well as developers of applications that handle PDF files.

The suite is distributed as a series of PDF patches. Each patch is numbered and contains several related tests. The patches can be used on their own but the intention of the suite is that the patches are grouped together (as PDF files would normally be grouped together within a workflow). The reason for this is that it is likely that some problems will only appear when certain patches are processed together. It is also likely that application settings and RIP settings can have a significant effect on the results.

All the issues tested by these patches are real world issues that can be found in a production environment; however, these patches do not reflect normal production files and the results may in some cases appear extreme. They have been carefully constructed to allow effects that are normally subtle to be seen clearly and unambiguously and this should be taken into account when evaluating the results of any tests based on these patches. On a technical note, all patches conform to either the PDF/X-1a or PDF/X-3 ISO standard; they do not always conform to the Ghent PDF Workgroup specifications.

It is likely that this suite will be updated, new patches will be added, and existing patches will be revised. For this reason the documentation for each individual patch is distributed along with the patch. It is advised to check regularly for updates to the suite on the Ghent PDF Workgroup website at <http://www.gwg.org>.

Version 3.0 Release Notes

In version 3.0 we have made some minor adjustments to some of the existing patches and documentation in order to make them clearer and easier to understand. We have also introduced four new patches.

Patch withdrawals:

Patch 12.1 —Black Overprint/Knockout has been removed. It was decided that although the tests carried out by this patch were valid, the results were too difficult to judge or interpret and could lead to confusion.

Patch updates:

Patch 10.0 is re-released as two patches. It was felt that there were too many tests incorporated in the original patch and for this reason 10.0 has been withdrawn and it has been replaced by two new patches 10.1 and 10.2.

New Patches:

The following new patches have been added in version 3.0:

- | | |
|------------|-----------------------|
| Patch 4.1 | —White Overprint Mode |
| Patch 13.0 | —Source Profile |
| Patch 13.1 | —Rendering Intent |
| Patch 13.2 | —ICC based OverPrint |

Contributors

This project has been put together by the members of the Ghent PDF Workgroup, and specifically the members of the process control sub-committee. It must also be acknowledged that the original idea came from the Kensington Suite, which was a similar project started by industry experts . We thank the originators of the Kensington Suite for letting us take their idea one step further.

A special thanks needs to be given to the following individuals for taking time out of their busy schedules to offer their hard-earned expertise, as well as for their determination in coming up with ideas, developing and then testing them.

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Using the Suite

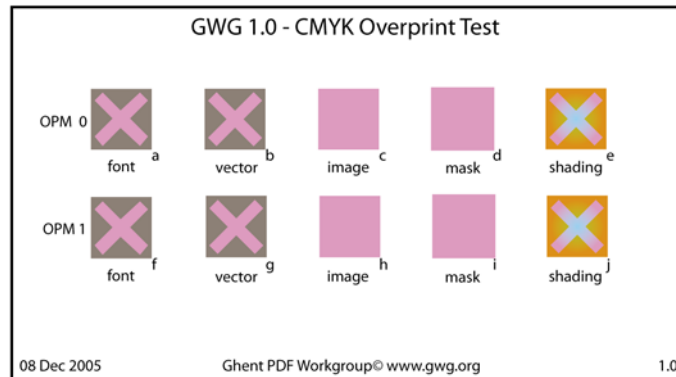
Patch Basics

The suite is distributed as a series of patches each containing related tests. In each case the patches are distributed with appropriate documentation. The patches have been constructed in such a way as to show clearly in a graphic fashion when a test within a patch has been rendered incorrectly.

The patches use two methods of showing appropriate or inappropriate behavior.

Method 1

A clear X indicates the improper handling of a file



Example 1a: Tests a, b, e, f, g, j have failed because a clear X is visible, while tests c, d, h, i have all passed because there is no clearly visible X.

Method 2

A comparison to a rendered object

GWG 9.0 - Font Support		
Type1 PostScript:	<i>äöüÄÖÜäääfißl©®@ÐÐÆÐœfÿþ%öb½ð</i>	(NewCenturySchlbk Italic)
Expected result:	<i>äöüÄÖÜäääfißl©®@ÐÐÆÐœfÿþ%öb½ð</i>	(NewCenturySchlbk Italic)
TrueType:	<i>ä ö ü Ä Ö Ü ä ä ä f i ß l © ® @ Ð Ð Æ Ð œ f ÿ þ % ö b ½ ð</i>	(BookAntiqua-BoldItalic)
Expected result:	<i>äöüÄÖÜäääfißl©®@ÐÐÆÐœfÿþ%öb½ð</i>	(BookAntiqua-BoldItalic)
CID (Type1):	<i>äöüÄÖÜäääfißl©®@ÐÐÆÐœfÿþ%öb½ð</i>	(WarnockPro-BoldIt)
Expected result:	<i>äöüÄÖÜäääfißl©®@ÐÐÆÐœfÿþ%öb½ð</i>	(WarnockPro-BoldIt)
CID (TrueType):	<i>ß l © ® @ Ð Ð Æ Ð œ f ÿ þ % ö b ½ ð</i>	(PalatinoLinotype BoldItalic)
Expected result:	<i>äöüÄÖÜäääfißl©®@ÐÐÆÐœfÿþ%öb½ð</i>	(PalatinoLinotype BoldItalic)
Multiple Masters:	<i>dit is een multiple master ex ponto non dit is een multiple master ex ponto non</i>	(ExPontoMM)
Expected result:	<i>dit is een multiple master ex ponto non dit is een multiple master ex ponto non</i>	(ExPontoMM)
Type 3 Vector:	<i>ä ö ü Ä Ö Ü ä ä ä f i ß l © ® @ Ð Ð Æ Ð œ f ÿ þ % ö b ½ ð</i>	(T1 / Garamond Bold)
Expected result:	<i>äöüÄÖÜäääfißl©®@ÐÐÆÐœfÿþ%öb½ð</i>	(T1 / Garamond Bold)
Type 3 Bitmap:	<i>null fällt ein negativer Zahlungsstrom an. In den Jahren eins bis fünf</i>	(T10)
Expected result:	<i>null fällt ein negativer Zahlungsstrom an. In den Jahren eins bis fünf</i>	(T10)
03 Nov 2005 Ghent PDF Workgroup © www.gwg.org 9.0		

Example 1b: In the above example the results of each line of text should match the “expected result” line directly below it which has been rendered previously. In this example, **TrueType**, **CID(TrueType)**, and **Type 3 Vector** show errors and do not match the expected result.

Using the patches

The README files distributed with the patches describe the appropriate use of the patches. They also include information about the individual tests within the patches and explain how to interpret the results. In each case it is strongly recommended that the user of a patch refer to the information within the README file, especially when evaluating results. The patches are not normal production files, however each of the tests within the files represent a real world issue. The patches have been constructed to be used together, and some faults may only appear when the patches are amalgamated or grouped together in an application. The patches are all 90 mm x 50 mm and will fit eight-up on an A4 or US Letter sheet. Re-sizing of the patches during testing is allowed and should not alter the behavior of the patches.

How to use the patches to test your workflow

In order to understand what your particular workflow may be doing to PDF files, these patches are to be used as if they were normal elements in your day-to-day production. Below are examples of two workflows that could be tested using the Ghent Output Suite.

Example 1

-A publisher is creating composite pages from incoming advertising

1. A publisher receives fractional advertising as PDF files, verifies the files and adapts them (e.g. to a printing condition) if necessary.
2. These files are grouped together to make magazine pages using a page layout application.
3. Composite pages are exported to PDF files sometimes through a direct export facility and sometimes via postscript and then distillation.
4. The PDF file is then evaluated on screen for content.
5. A hard copy proof is made on an office laser printer and is sent to the printer along with the PDF file.

In workflow example 1 there are several areas where things could go wrong. It could be that the layout application is not displaying the patches correctly on the screen, or that the output condition has not been accounted for. It is also possible that when the composite file is created through direct export or through postscript and distillation some issues may arise. It is even likely that there are different results between direct export and postscript/distil. The content check on screen could be rendering the composite page differently than the hard proof which is made afterwards.

Example 2

-A printer is supplied single page PDF files to print

1. A printer receives single page PDF files and verifies them.
2. PDF files are proofed on screen for content.
3. The PDF files are grouped together in an imposition software application and exported to a composite PDF file.
4. The composite PDF files are proofed to the client using a soft proofing device.
5. The composite PDF files are ripped and output to plates for printing.

In workflow example 2 there are several areas where things could go wrong. When the PDF files are evaluated on screen it is possible that the viewing application is not rendering correctly. The content of PDF files could also change if the imposition application is not handling the content correctly, or is not accounting for the output printing condition. It is also possible that the soft proofing device is rendering different results than the RIP driving the plate-making device.

Example 1 and Example 2 are both typical workflows in which PDF files are used. They seem like straight forward setups but things can go wrong at various stages.

In both these cases the patches can be used as if they were incoming files. They can be assembled together to create the composite pages. It will become evident if the steps in the workflow are adversely affecting the files, or if the proofing steps are accurately rendering the files.

It is unlikely that your workflow is exactly the same as these two examples, but it will most likely be similar in some respects. These patches are tools that you can use to evaluate your current workflow, and if you run them through your workflow they should point out potentially problematic areas.

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Use of the Ghent Output Suite (which is defined as the totality of its patches and documentation files) is subject to the following conditions which are deemed accepted by any person or entity making use hereof.

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