

# GWG turns 10

**We at Digital Dots have repeatedly stated that there are four standards organisations that every printer and publisher should follow closely in order to keep up with workflow efficiency and quality management in general. This “gang of four” are the CIP4, GWG, ICC and ISO. In this article we focus on the Ghent PDF Workgroup (GWG), which celebrates its 10th anniversary this year.**

So what is GWG, and what does it do? When Peter Camps, then at Enfocus, initiated GWG in 2002, he wanted it to be a user group, dominated by users. After a few years the GWG adjusted its membership rules to include vendor, industry, and education members in order to round out the knowledge base. This spirit is still maintained, with a mix of industry professionals on the board, called the Executive Committee. The chairman is David L. Zwang, and the work is split between 11 subcommittees, each with a different focus. The subcommittees cover quite broad topics like colour management, cross media, job ticketing and process control, as well as specialised areas like packaging and variable data printing.

But why a special workgroup for PDF processing? Well, this goes back to when PDF was a fairly new file format, and not considered to be fully tested for high end graphic arts production. There is also a strong connection between GWG and the work within ISO, especially in Technical Committee 130, responsible for the standards used in Graphic Arts Production. Initiated outside ISO, but eventually handed over to them, PDF/X came to be published as an ISO standard in 2001. While the general PDF standard, ISO 32000 and the different versions of PDF/X (the ISO 15930-series) are updated through ISO, it is the way that they are best implemented in real life graphic arts production that is the main task for GWG.

To check if a PDF is compliant to PDF/X (where the 'X' stands for exchangeable) you need to perform some type of preflight. While all PDF/X files are standard PDF files, not all PDF files comply with a specific PDF/X-standard. This is where the GWG comes into play, presenting what is called PDF/X Plus. The 'Plus' part is a specification for

both creation and preflight of PDF files meant for high end graphic arts production, including advanced job ticketing to facilitate automated workflows.

We at Digital Dots have followed the work of the GWG from the very start, and welcomed an invitation to join a work meeting held in Ghent this July. The main focus for the GWG right now is to finalise the details in the latest version of the GWG Specification. Version 1 was published in 2003, and version 4 (present) in 2008. The new version will not be called 5, but instead “GWG 2012 version”, possibly to avoid confusion with PDF/X 4 and 5, which both are the latest versions of PDF/X. Confusing? Well it can be, especially if you also take into account that



*Ten years later, and still going strong. The Ghent PDF Workgroup 2012 summer meeting in Ghent drew attendees from almost all of the 11 subcommittees, with experts representing users, trade organisations and vendors.*

PDF itself is now in version 1.7, but will soon jump to version 2.0 (soon being a relative term in standards work as we are probably looking at the later part of 2013).

Since the general file format for PDF has a very wide functionality, not all of this functionality is allowed in a compliant PDF/X file. The GWG specification tells both a PDF-creating application how to generate a PDF/X compliant file, as well as telling a preflight application what to check for in a PDF when validating if it is compliant to the PDF/X-version required. The GWG 2012 specification accepts some, but not all, functionality of PDF 1.6, all according to the present PDF/X standards.

At the moment probably the two most commonly used versions are PDF/X-1a and PDF/X-4, where PDF/X-4 has

replaced PDF/X-3. But there are some users of the special versions PDF/X-4p and PDF/X-5g, 5n and 5pg. Let's not lose ourselves in explaining those special versions here, but only briefly clarify that PDF/X-1a means a CMYK workflow, while PDF/X-4 allows an RGB workflow, with late conversion to CMYK, for example, in the very moment when the PDF file is created. PDF/X-4 also supports layers and transparency, while PDF/X-1a forces pre-flattening as when using Postscript. So in consequence you can create PDF/X-1a using Adobe Distiller, but not PDF/X-4, since Distiller needs a Postscript file as input.

Much of the focus in the GWG 2012 Specification is about reaching true compliance to PDF/X-4, and the subcommittee for Compliancy Testing, lead by Didier Haazen from VIGC, the Belgian graphic arts research centre, has brought about its own test suite for compliance to PDF/X-4. GWG cooperates to some extent with another user group, the ECI or European Color Initiative. ECI has released part of its Altona Test Suite v2, and GWG and VIGC share test objects as a part of their

## **Both Adobe and Quark are very active in GWG – important since it's crucial that PDF-generation is made in as 'print safe' a way as possible.**

tests. But VIGC mainly uses the GWG suite of tests, as well as some additional test documents developed by VIGC, in its compliance testing. At the moment no preflight vendor seems to be able to perform a 100% compliant PDF/X-4 processing of all the tested documents and elements in the tests that VIGC uses, but some vendors can process what VIGC considers "necessary" elements in the test suite.

The preflight applications that will fully comply with the GWG 2012 specifications should start to be available in the very near future. Anyone who wants to learn more about the VIGC tests should buy the full report from VIGC. However, the Altona Test Suite v2 Technical Page is free to download from the ECI website, if you want to conduct your own tests. It's worth pointing out that the Altona Test Suite v2 does not test full compliance with the

GWG 2012 Specification, nor with any of the released RIP software at this point. Such compliance tests will be done by GWG when the specification is finally published and implemented by interested software vendors.

The list of vendor members of the GWG is quite impressive – basically all the RIP- and proofing vendors have joined, as well as vendors of preflighting and softproofing



*Vikki Blake, CGS, and Executive Director for GWG (to the right) lead the general meeting, after which each chairman for the subcommittees leads the work meetings covering everything related to PDF processing, including cross media publishing.*

applications. Both Adobe and Quark are very active in GWG – important since it's crucial that PDF-generation is made in as 'print safe' a way as possible. One might have thought that print technology would have reached a fully mature and stable state by now, but when it comes to advanced and complex designs, including transparency, spot colours, layers, blend modes, different flattening options, overprint (or not), colour management et cetera – there are still many places where things can go wrong. The ongoing task for the people in the GWG is to help the vendors to find those gaps in the workflow, and plug them with solid solutions.

But it's not only print production that is of interest to GWG. Many of their members from publishing houses live in a cross media production environment, and need to find best practices for both distribution and long-term storage of documents. The Cross Media subcommittee follows the developments closely, and at the recent Ghent meeting Leonard Rosenthal from Adobe pointed to the Open Ajax Alliance for possible bridges between PDF and ePublishing. At the heart of the work of the





*Didier Haazen from VIGC is chairman for the Compliance Testing subcommittee, and reported on the findings so far from a series of tests VIGC has conducted on PDF/X-4 processing compliancy. There are still issues, but hopefully most of them will be ironed out when the new GWG PDF/X Plus Specification of 2012 is fully implemented by the vendors.*

OAA is the Open Ajax Metadata specification, an open source-based format for data exchange, especially for web programming. OAM is based (of course) on XML, and the different components of a publishing project can be packed into a compressed container, like the Adobe UCF (Universal Container Format) for XMP, used in all of Adobe's applications as the placeholder for metadata.

When it comes to metadata, the GWG have developed several specifications to help in sub processes in publishing, like job tickets for ad placement as well as softproofing. The work of the GWG is not so much about writing new standards or code, but to find best practices, using *de facto* standards which might already exist. For a specialised area like packaging this might mean that colour related metadata could be encoded using another XML-based standard, the CxF-format, used already in commercial applications like Pantone LIVE. For the GWG, it comes in handy that Esko is a member and that Esko is heavily involved in the future development of CxF and Pantone LIVE, together with Sun Chemical and X-Rite. Another cross-over between the GWG and ISO TC 130

is that CxF is about to be published as an ISO standard for colour metadata exchange typically embedded in PDF files.

But coming back to the core of the GWG, proper PDF-creation and validation (preflighting), in Ghent VIGC previewed a nifty little feature called VIGC Output Essentials, due to be launched in August. This tool is to be used in tandem with the live preflight function in Adobe InDesign, and in Photoshop. VIGC has used the new Adobe Configurator 3, to build a customised panel for live preflight, as a complement to the existing one in InDesign. The panel has two columns, the left for preflight related to web publishing and the right for preflights for print publishing. This is a small example of how the different members of GWG share knowledge and experience, not only with each other internally, but also in publishing those tools and settings publicly for anyone to use.

So if your ambition is to reduce the number of errors in document creation for your organisation, or you want to increase the level of automation in your workflow, we suggest that you use PDF/X in the first place, and learn from GWG how to best create and validate PDF/X files through the recommended settings for each and every application relevant for those tasks. The active members in the GWG, including single companies, trade organisations, and all the vendors, deserve credit for the work they put in – it seems to go largely unnoticed in our industry as a whole.

If you use the GWG PDF/X Plus already then watch out for new settings based on the GWG 2012 Specification, which will be published later this year! And also take the opportunity to attend any of the free seminars that the GWG arrange worldwide, often in conjunction with bigger trade shows. Using the GWG Best Practices might very well save time and money for your company!

**- Paul Lindström**

