Overview

This standard covers the checking or 'preflighting' of digital artwork files supplied for production-scale printing.

Checking that digital artwork files are correctly configured has come to be known as 'preflighting'. For a simple piece of digital artwork in native format, it may not be difficult to preflight the file manually by opening the document in the software that created it and checking the individual components such as fonts, images, bleeds and page sizes. However, the sophistication of modern graphic art software also means that many complex issues may present themselves, such as layers, clipping paths, transparencies and colour spaces, to name a few. As a result, most documents presented for printing tend to be routinely checked using preflighting software.

It applies to you if you work in a studio, imaging bureau, pre-press department or digital printing environment and receive digital files from or on behalf of customers.

This is what the standard covers:
If you work in a studio, bureau, pre-press or printing environment you may often receive digital artwork files for printing from customers, designers or others. Sometimes you may have created or reformatted the digital artwork yourself.

In order to print the artwork successfully in a production environment - whether by screen printing, lithography, flexography, gravure or any other method – the artwork must be correctly configured for printing process, substrates, and any post-press operations that will follow printing.

There are a large number of parameters within digital artwork files that must be checked prior to sending the job to print. International and national organisations have produced standards or specifications for printing and / or digital artwork, including:

1. The International Organisation for Standardisation - ISO 12647 (Process control for the production of half-tone colour separations, proofs and production prints).
2. The Ghent Workgroup - has specifications for PDF files, including formats such as PDF/X-1a and PDF/X-3
3. The UK's Periodical Publishers Association – has issued 'Pass4Press' specifications for artwork so that it will reproduce properly in periodicals printed by high speed web presses.
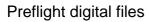
Performance criteria

You must be able to:

Preflight digital artwork files

1. provide file specifications and details of external standards, specifications, profiles or job options for the creation of pdf files to digital artwork originators or suppliers using the expected method
2. identify which digital artwork files to preflight check and advise the file supplier or originator without delay when the format is not acceptable
3. determine appropriate parameters in the artwork to be checked
4. determine the appropriate typical values, settings or external specification which artwork parameters should comply with
5. select appropriate profile, rules or values against which to compare digital artwork
6. preflight artwork file(s) using the most appropriate electronic preflight software
7. review preflight reports and save them, when required, in suitable electronic or paper based format
8. determine the significance of issues reported from electronic preflighting against organisational expectations
9. pass the significant findings of preflight reports to customers or other relevant people
10. explain issues and their solutions in a clear manner using appropriate language

Interpret and report the results of preflighting digital artwork files

11. determine whether artwork meets external standards or specifications
12. carry out accurate analysis of preflight reports and identify any reasons why external standards or specifications have not been met
13. determine, with accuracy, from preflight reports, whether failure to meet standards prevent files from being used for their intended purpose
14. review and interpret preflight reports and determine whether any alerts, errors, warnings or other information in the report indicate issues that will prevent files being used for their intended purpose
15. report delays to the appropriate person when digital artwork cannot proceed to the next stage
16. explain any significant issues causing non-compliance of digital artwork files, using appropriate language, having regard to the technical understanding of the person to whom you are reporting
17. provide a detailed explanation of any non-compliance issues and advise on

the what needs to be done to correct files

18. maintain quality assurance or other records in line with organisational requirements

Knowledge and understanding

You need to know and understand:

The law as it affects printing

1. copyright and ownership of images
2. images
3. data protection

Health and safety

4. hazards and risks in your own job, their assessment and the action to take to deal with them
5. manufacturers' and suppliers' health and safety requirements relevant to your job

Security and storage

6. how to safely handle customer material
7. computer system security and virus protection

Communication requirements and processes

8. how to communicate with colleagues
9. how to communicate with customers
10. when to communicate with originators or suppliers of digital artwork and colleagues

Workplace policy and practice

11. workplace objectives, priorities, standards and procedures
12. the identification and assessment of printing options
13. the stages in the printing process from pre-press to printed product

Time and resources

14. the relationship between resource usage and profitability

The operation of equipment

15. the set-up of preflighting software
16. the operation of preflighting software

Printing

17. the principles of layout and imposition, including the use and placement of marks and control guides
18. the principles of the printing processes for which digital artwork files are

intended

Digital imaging

19. the relationship between image size, file size and resolution
20. font management
21. colour management
22. RGB versus CMYK and other colour models

Digital files

23. file management procedures
24. the international standards and specifications for digital files
25. the causes and treatment of common faults
26. file conversion techniques
27. the common reasons for missing fonts and images
28. knockout versus overprinting

Administrative procedures

29. recording and reporting

Quality assurance and control

30. the main features of quality assurance and quality control systems

Preflighting

31. the purpose and benefits of preflighting including the identification of layers, clipping paths, transparencies and colour spaces
32. the organisational expectations of preflighting
33. the principles of preflighting and how to operate preflight software
34. how to interpret preflight reports

Scope/range	The operator can work with preflighting software to check that digital artwork files are correctly configured for print. The preflight software can either check 'native' artwork files (for example Quark or InDesign documents) or only PDF files. It may be 'standalone' preflighting software or part of a workflow.
	The operator is a highly skilled specialist capable of identifying any issue that could prevent a digital artwork file from being used satisfactorily for the printing process for which it was intended.
	It is not sufficient to simply run a pre-configured preflight software programme or workflow module and then pass the report on to someone else.

Preflight digital files

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Originating Organisation	Proskills
Original URN	PRODPP130
Relevant Occupations	Originators compositors and print preps; Printers; Printing machine minders and assistants; Printing Trades; Screen printers; Bookbinders and print finishers; Graphic designers
Suite	Pre Press
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