Produce computer-generated imaged film

Overview

This standard is about producing film from print ready files that will be used to make image carriers.

It will involve sending the files to an imagesetter. Different printing processes require different kinds of image carriers. The image carriers produced can be for the following printing processes:

- Offset lithography
- Gravure
- Flexography
- Screen Printing

This is what the standard covers:

Most artwork for printing is created by digital software packages and at some point, an image carrier has to be produced.

Print ready files, once approved for print, has to be output in an imposed format that can be positioned accurately on the carrier. Colour separations will need to be processed correctly to achieve the required reproduction quality when printed. This involves the selection of the correct output parameters.

Produce computer-generated imaged film

Performance criteria

You must be able to:

Position images electronically

1. check you have all the details required for the job and approval to start work
2. retrieve or create the appropriate imposition template that meet the requirements of the job
3. apply the correct imposition or stepping information into the system, taking into account the working size of job, machine and cylinder size, registration marks, finishing methods, quantity required and then process through the automated workflow
4. operate equipment in a safe and productive way in accordance with organisational procedures
5. identify accurate information about data, system and software problems which will affect imposition production and correct them in accordance with organisational procedures
6. report data, software and system problems which are not your job to deal with in accordance with organisational procedures
7. create accurate job references and store print ready job files in a secure way in accordance with organisational procedures

**Prepare images for processing

**

8. confirm job files are compatible with the imaging software to be used
9. set appropriate output parameters to meet job specifications with regards to: resolution, screen ruling, dot type, screen
angle, orientation, position on the plate, register marks, quality control strips

10. check the correct size/kind of film is loaded into the imagesetter
11. check the imagesetter is appropriately calibrated for operation
12. complete your work within agreed deadlines

**Process data through computer to imagesetting system

**

13. send data to imagesetter in line with manufacturer's instructions
14. process film(s) after imaging in line with manufacturer's instructions
15. identify accurate information about errors and faults and correct them in accordance with organisational procedures
16. report errors and faults which are not your job to deal with in accordance with organisational procedures
17. check that film(s) meets job requirements for quality and specification
18. store completed film(s) in a secure way in accordance with organisational procedures

Produce computer-generated imaged film

19. keep accurate records for quality assurance and administrative purposes as required by your company
20. archive print ready files as required by your company

Produce computer-generated imaged film

Knowledge and understanding

You need to know and understand:

1. the law as it affects printing: copyright and ownership of images, obscenity, forgery
2. ethical issues relevant to printing: confidentiality
3. hazards and risks in your own job, their assessment and the action to take to deal with them
4. manufacturers' and suppliers' health and safety requirements relevant to your job
5. how to safely handle customer material
6. computer system security and virus protection
7. the secure methods of archiving digital and conventional artwork
8. how to communicate with colleagues and customers
9. workplace objectives, priorities, standards and procedures
10. the identification and assessment of printing options
11. the reasons for selecting one printing process over another
12. the set-up of imaging equipment and software
13. the operation of imaging equipment and software
14. colour theory, including additive and subtractive systems such as RGB and CMYK colour gamuts
15. the relationship between image size, file size and resolution
16. the difference in file formats for images and the reasons for using them
17. how to set up, maintain and use image profiles
18. file conversion techniques
19. file compression and decompression systems
20. file management procedures
21. the causes and treatment of common faults in laser imaging
22. the legal requirements for the classification, storage, carriage and disposal of waste
23. any specific environmental legislation that covers processes in your company control of pollution
24. the main features of quality assurance and quality control systems
25. techniques for controlling quality
26. equipment for controlling quality in printing
27. types of problems that may need to be solved
28. sources of information
29. techniques for assessing machine faults
30. the types and characteristics of paper, board and other commonly used substrates
31. the types and characteristics of inks, toners and coatings
32. the reason for using film to produce image carriers
33. the purpose of image carriers
34. the principles of imposition
35. appropriate output parameters including screen ruling and dot

type, resolution and screen angle

36. how to determine the correct positioning of images on image carriers

Produce computer-generated imaged film

Developed by	Improve
Version Number	3
Date Approved	26 Feb 2021
Indicative Review Date	31 Jan 2024
Validity	Current
Status	Original
Originating Organisation	NSAFD
Original URN	PRODPP132
Relevant Occupations	Printers, Printing Machine Minders and Assistants, Printing Trades
Suite	Pre Press
Keywords	digital, laser, print ready files, print, pre press, images, carriers, plates, impositions, quality, colour, film