

Overview

This standard is about capturing material in digital form using either a scanner or a digital camera. It includes detailed intervention where automatic settings do not give the required result.

The standard applies if you produce digital artwork for print or work in a pre-press or digital printing environment.

Subject to the demands of any brief, you are responsible for deciding on the approach you want to take, both creative and technical. You need to have enough flexibility to change your approach when you think it is necessary.

Performance criteria

You must be able to:

Decide on approach

1. assess the likely quality of images that will be captured from material against customer expectations
2. give customers clear and accurate information about the advantages and disadvantages of capturing material
3. give customers clear and accurate information when other approaches may be more suitable
4. assess the operations necessary to produce the required output
5. make arrangements to sub-contract any work you cannot carry out in the workplace, using appropriate procedures
6. select the most suitable equipment for the material to be captured and the output required

Prepare equipment and material for capture

7. carry out any low-resolution image capture necessary to establish the required software values
8. apply the software values which are appropriate for the material to be captured and the output required
9. check that the equipment to be used, and the material to be captured are clean
10. handle the material in a safe manner
11. load the material in line with manufacturer's instructions

Produce images

12. produce images which comply with specification in terms of physical size, file size, content, orientation, colour, sharpness, brightness (exposure), contrast, colour space - RGB, CMYK and greyscale and output resolution
13. produce images which are free of unwanted physical defects, fingerprints, dust damage and scratches, newton's rings, moiré patterning from screened originals, pixelisation, colour, posterisation and halo effects
14. assess images against customer requirements and workplace standards
15. detect any problems with the images and identify which are due to faulty capture and which are due to other factors
16. discuss any problems with the correct colleagues and, where necessary, with customers and agree the action to be taken to resolve problems
17. follow workplace procedures in dealing with potential problems, recognising

Plan and capture digital images

- any potential legal issues arising from the nature of the
18. carry out discussions with customers in a positive and constructive manner
 19. maintain the confidentiality of customer material in line with organisational procedures
 20. save image data files in the correct format
 21. produce images to the correct image profiles
 22. maintain version control in line with organisational procedures

Knowledge and understanding

You need to know and understand:

The law as it affects printing

1. defamation
2. copyright and ownership of images
3. obscenity
4. incitement
5. forgery
6. data protection

Ethical issues relevant to printing

7. confidentiality
8. the personal issues important to others, including ethnic origin, gender, religion, sexuality

Health and safety

9. the hazards and risks in your own job, their assessment and the action to take to deal with them
10. relevant health and safety regulations on the safe handling of equipment and materials, and the safe use of computer equipment
11. manufacturer's health and safety requirements relevant to your job

Security and storage

12. the safe handling of customer material
13. the secure methods for archiving digital and conventional artwork

Communication requirements and processes

14. how to communicate with customers
15. how to communicate with colleagues

Workplace policy and practice

16. workplace objectives, priorities, standards and procedures
17. the identification and assessment of printing options
18. the reasons for selecting one process over another
19. the choice of processes for any particular product
20. the role of images in graphic communication
21. changing image styles, fashions and demands in printed products
22. the stages in the printing process from pre-press to printed product

Time and resources

- 23. the relationship between resource usage and profitability
- 24. how to maximise productivity

The operation of equipment

- 25. the set-up of scanning equipment
- 26. the operation of scanning equipment

Digital imaging

- 27. colour theory, including additive and subtractive systems such as RGB and CMYK colour gamuts
- 28. the relationship between image size, file size and resolution
- 29. the different file formats for digital images and the reasons for using them
- 30. the range of methods, equipment, material and software appropriate to the imaging requirements
- 31. the methods of controlling contrast, density and colour characteristics during scanning
- 32. the relative merits of the methods, equipment, material and software
- 33. how to assess material for capture and the potential problems that may be encountered and their solutions
- 34. colour management and how to set up, maintain and use image profiles

Digital files

- 35. how to deal with embedded information
- 36. file management procedures
- 37. the causes and treatment of common faults in scanning

Quality assurance and control

- 38. the main features of quality assurance and quality control systems
- 39. techniques for controlling quality, including inspection, testing, sampling, use of input and output controls
- 40. light standards for viewing and assessing colour print

Scope/range

Materials

The operator can capture the following material:

- reflective material, e.g. photographic prints and printed material from books, magazines and newspapers.
- transparencies and photographic negatives.
- black-and-white and colour material, including line, halftone and continuous tone.
- material with a wide range of tonal contrast.
- a key requirement is the ability to handle safely the material, particularly if this is the property of other people.

Equipment

Whichever device is used, it must be capable of allowing the operator to make adjustments covering the range of adjustments to the scanned image set out in this standard. 'All-in-one' devices at the lower end of the market (e.g. fax-copy-scan-print inkjet devices) are unlikely to have sufficient range of operator-selectable settings for this standard.

Operators are able to capture single and multiple originals and handle complex settings for difficult originals, e.g. originals with limited tonal range and with colour faults.

Discussions with customers

Operators will not have to discuss all of image capture with customers, but will be able to do so when the need arises, e.g. when they have questions, when they have to deal with "difficult" material or when there are problems. The operator will tell customers about capacities and limitations and suggest other approaches where necessary.

Assessment of scanned output

Operators are able to make an accurate assessment of the output and detect any defects and the reasons for them.

Legal issues

Legal issues are, by their nature, difficult to predict and are unlikely to occur in most cases. Operators are aware of the legal knowledge specified for this Standard so that they can spot any potential problems and take the action required in your workplace.

Plan and capture digital images

Developed by Proskills

Version Number 2

Date Approved October 2014

Indicative Review Date April 2019

Validity Current

Status Original

Originating Organisation Proskills

Original URN PRODPP125

Relevant Occupations Originators compositors and print preps; Printers; Printing machine minders and assistants; Printing Trades; Bookbinders and print finishers; Graphic designers; Screen printers

Suite Pre Press

Keywords digital, print, pre-press, pre press, images
