ICPPR496A Set up and produce complex digital print

Revision Number: 1

ICPPR496A Set up and produce complex digital print

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to set up for and produce complex digitally printed product. This unit incorporates the use of raster image processor (RIP) technology when outputting to digital devices including wide format.
	No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	This unit applies to the production of complex digitally printed products in the commercial print, pre-press, bureau, high-end digital print or a combination of these business environments.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	ICPPR384A	Set up and produce basic digital print

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Liaise with clients	1.1. A *productivity analysis* on a digital print system is performed to determine guidelines for most productive print method for a range of print applications 1.2. Print services, quality expectations and print costings are communicated to clients according to enterprise procedures 1.3. Productivity advantages and disadvantages of different digital print options are presented to clients according to enterprise procedures 1.4. Advice is provided to clients on appropriate substrates and document finishing methods for digital print jobs according to client budget and job specifications
2. Confirm job specifications	2.1. Print job specifications are read and correctly interpreted from job documentation or production control system 2.2. Availability of all job components is checked according to enterprise procedures 2.3. *Finishing* requirements of job are confirmed and coordination with internal workflow and/or outsource arrangements is maintained 2.4. Run time of job is determined and completion time is correctly estimated demonstrating consideration of other production demands
3. Set up and maintain a digital print system	3.1. *Substrate* is loaded to correct reel or sheet feeding mechanism and all substrate properties are correctly specified in the user control interface 3.2. Delivery unit is set up on a machine and adjustments made to minor in-line processes on reel-fed machine or on-line finishing settings on sheet-fed machine 3.3. Preventive maintenance is performed on a digital printing system to ensure optimum quality and productivity are achieved 3.4. Common factors affecting print quality and productivity of a digital printing machine are identified and solutions implemented to minimise and/or eliminate these
4. Use the complex features of RIP or front-end processor	4.1. *Colour* adjustments are made to ensure optimum image quality and/or to match sample 4.2. *Output profiles* are selected *according to job*

ELEMENT	PERFORMANCE CRITERIA
	specifications
	4.3. *An imposition* method is selected to make best use of stock
	4.4. *Screen ruling is adjusted to ensure optimal output of job*
	4.5. *Overprints and trapping are adjusted to achieve optimum output*
	4.6. *Finishing options are set up according to job specifications*
5. Perform and/or coordinate document proofing	5.1. The type of *proofing* method is determined according to job specifications
	5.2. A digital proof run is conducted for client approval and conformance of proof to job specifications is confirmed
	5.3. Internal or external pre-press proofing systems operators are consulted to conduct the proof run and provide job requirement information according to enterprise procedures
	5.4. Communication between the client and proofing provider is demonstrated to ensure proof meets job specifications
6. Run digital print job and/or coordinate press print run	6.1. Production schedules, job specifications and enterprise procedures are observed and liaison occurs with internal and/or external production operators to determine start and duration time for the print run
	6.2. Completion time for the print run is estimated and communicated to the client and co-workers according to job specifications and enterprise procedures
	6.3. An entire digital print run is conducted according to job specifications ensuring that machine productivity and quality are monitored and rectified throughout the duration of the print job

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Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- occupational health and safety (OHS) in relation to operating machinery, such as safely switching off machinery before cleaning is started
- communicating ideas and information by interpreting client requirements to recommend most productive method of printing
- collecting, analysing and organising information by collecting and assessing data on printing processes to determine time and cost savings to a client
- planning and organising activities by suggesting production sequences to maximise efficiency
- teamwork skills when cooperating with external production providers and giving consideration to their production scheduling requirements
- mathematical ideas and techniques by calculating run length time of two different print solutions to determine most productive method
- problem-solving skills by recognising electronic file errors to determine a file conversion procedure
- use of technology by using RIP or font-end processor to submit files for printing

Required knowledge

- factors that influence making a decision about using a particular printing solution (run length, substrate type and application)
- cost difference between a specified job printed on a digital system and a specified traditional system, e.g. digital vs. lithographic
- quality difference between a specified job printed on a digital system and a specified traditional system, e.g. digital vs. lithographic
- difference in turnaround time of a specified job printed on a digital system and a specified traditional system, e.g. digital vs. lithographic
- print method that would be the most appropriate option for the specified print job
- measures that can be taken to ensure clients have correct procedures for providing electronic files
- main differences between digital printing and traditional printing methods
- recommendations that can be made to clients who have created an electronic file in an incompatible software application
- suggestions that could be made to clients who require a high-volume print run but need a portion of the print job immediately
- steps needed to be followed for client approval of a proof
- circumstances a job would be modified before printing
- steps involved for client approval of the print
- proof check procedures

REQUIRED SKILLS AND KNOWLEDGE

- processes involved for gaining final approval of a basic job
- adjusting colour, toner/ink coverage or density to solve problems
- need for using correct output profiles
- screen ruling shapes and sizes
- various types of binding
- advantages and disadvantages of various binding methods
- procedures followed if the binding method required by the client is not available at the workplace
- alternative options if the document size was too thick to staple
- importance of packing finished print work

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: • communicate a range of digital and traditional printing solutions • coordinate a print run that uses a combination of digital and traditional printing solutions • conduct a digital proof run, adjust settings and ensure production speeds are attained on a digital printer • perform preventive maintenance tasks on digital printer to maintain machine productivity • use advanced RIP or front-end processor features • find and use information relevant to the task from a variety of information sources • perform preventive maintenance tasks on a digital printer according to manufacturer's specifications • set up and printfourcomplexcolour digital printing jobs according to manufacturer's specifications and enterprise procedures.
Context of and specific resources for assessment	Assessment must ensure: • that conditions are typical ambient conditions found in the workplace • access to relevant facilities, equipment and materials used for digital printing, such as full-colour production digital presses or wide format printers • use of culturally appropriate processes and techniques appropriate to the language and literacy capacity of learners and the work being performed.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct questioning combined with review of portfolios of evidence • third party workplace reports of on-the-job performance by the candidate • practical demonstration by the candidate when setting

EVIDENCE GUIDE	
	up and producing a complex digitally printed product.
Guidance information for assessment	Holistic assessment with other digital production units relevant to the workplace and job role is recommended. For valid and reliable assessment of this unit, evidence should be gathered over a period of time through a range of methods for assessment to indicate consistent performance.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Productivity analysis may include:	• production speeds for a range of print volumes and substrate types • quality standards • cost of labour • materials • maintenance and servicing.
Finishing may include:	• stapling • folding • punching • perforating • cutting • numbering • date coding.

Substrates may include:	• range of print media and paper, such as:
	  • coated
	  • uncoated
	  • card
	  • canvas
	  • vinyl
	  • plastic.

Colour may include:	• cyan, magenta, yellow, black (CMYK) • Pantone simulation.
Proofing may include:	• soft (on screen) • hard proof.

Unit Sector(s)

Unit sector	

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Competency field

Competency field	Printing