



Australian Government

Department of Education, Employment and Workplace Relations

CUVPHI515A Prepare digital images for pre-press printing

Release: 1

CUVPHI515A Prepare digital images for pre-press printing

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the performance outcomes, skills and knowledge required to prepare client image files for pre-press processing.

This unit is based on CUVCRS16A Prepare text and graphic files for print processing and ICPPP430A Manage colour and has been contextualised for application to the photoimaging industry.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

Application of the unit

This unit applies to the digital imaging industry where image files require processing before printing. It requires the self-directed application of skills and knowledge to prepare digital images for pre-press processing.

This work would usually be carried out independently although guidance would be available if required.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

The following units or demonstrated equivalence are required prior to undertaking this unit:

- CUFDIG303A Produce and prepare photo images
- CUVPHI07A Process photoimages to work print/file stage
- CUVPHI514A Employ colour management in a digital imaging workplace

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 Consult with pre-press bureau about formatting requirements. | <ul style="list-style-type: none">1.1 Source a <i>checklist for printing requirements</i> from <i>appropriate person/s</i> and follow throughout preparation process.1.2 Obtain relevant specifications for <i>software</i> and image file formatting from appropriate person/s.1.3 Ensure constraints of different printing processes (and other diffusion techniques) are understood. |
| 2 Prepare files for pre-press processing. | <ul style="list-style-type: none">2.1 Prepare image files using <i>appropriate pre-press processing techniques</i>.2.2 Choose suitable test charts/targets and print to appropriate specifications for ink density and <i>stock</i> on a linearised proofer.2.3 Calibrate digital proofing device to examine test charts and use results to generate colour profile.2.4 Print test file on calibrated digital proofing device and use results to generate output profile for <i>press</i> and stock.2.5 Proof sample image and confirm with client.2.6 Optimise images and output image product to profile specifications using industry standards.2.7 Save image files in <i>appropriate format</i> for pre-press processing and prepare invoice/account for client.2.8 Pack completed images for electronic/physical dispatch with invoice/account and deliver to agreed location by appropriate method/s within agreed timeframe.2.9 Conclude and maintain management procedures. |
| 3 Wrap up and review print preparation. | <ul style="list-style-type: none">3.1 Catalogue and archive images appropriately.3.2 Review response from client/s against final printed product.3.3 Maintain contractual and financial records for business and taxation purposes.3.4 Review personal performance within job context. |

ELEMENT**PERFORMANCE CRITERIA**

3.5 Identify future opportunities, work directions, equipment needs and workflow changes resulting from job.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills:

- research techniques sufficient to access information on colour theory and management (as it applies to pre-press processing)
- communication skills sufficient to:
 - collaborate/negotiate between client/s and printing bureau
 - discuss colour, its theory and management
- literacy skills sufficient to:
 - interpret a broad range of information on colour theory and management (as it applies to pre-press processing)
 - interpret material specifications necessary for pre-press processing
- numeracy skills sufficient to:
 - calculate layout requirements/material specifications for pre-press processing
 - compare a colour sampler reading (e.g. eye-dropper value against a 'known value' and calculate a response)
 - determine colour cast and neutrality from a colour sampler reading (e.g. eye-dropper value)
 - identify/assign numeric values to colour as required by pre-press processing
 - read and evaluate Out of Gamut colours and Total Ink/Black Ink limits
 - understand numeric values and meaning against colour theory and how RGB, CMYK and LAB colour values are quantified
- planning and organising skills sufficient to plan integration of colour management into pre-press processing contexts
- problem solving skills sufficient to identify/resolve common colour management problems in pre-press processing
- technology skills sufficient to use/calibrate scanning and digital proofing devices.

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge:

- colour theory/management associated with pre-press processing
- copyright, moral rights, intellectual property and legislative issues associated with pre-press processing
- different printing/diffusion techniques and their constraints with respect to design
- environmental issues associated with pre-press processing
- equipment, tools and materials associated with pre-press processing
- organisational and OHS requirements associated with pre-press processing and computer usage.

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.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- production of CMYK, CMYK with spot colour channel and Duo/Tri/Quad tone image files which cause no pre-press processing problems
- production of clipping paths (deep etched) to suit the needs of the image and client/job requirements
- management of colour in pre-press processing to ensure test prints and final products match.

Context of and specific resources for assessment

Assessment must ensure:

- access to an environment where digital image files can be prepared for pre-press processing
- access to appropriate sources of information to research colour theory/management
- access to appropriate learning and assessment support when required
- the use of culturally appropriate processes, and techniques appropriate to the oracy, language and literacy capacity of the assessee and the work being

EVIDENCE GUIDE

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 and third party workplace reports of on-the-job performance by candidate
- case studies to assess candidate's ability to manage colour in pre-press processing
- direct observation of candidate preparing digital image files for print processing
- problem solving activities to assess candidate's critical thinking skills.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- CUVPHI506A Produce commercial photoimages
- CUVPHI508A Produce media photoimages
- CUVPHI510A Plan, capture and exploit art photoimages
- CUVPHI511A Produce technical photoimages
- CUVPHI512A Make illustrative images for publication and display
- CUVPHI513A Plan, capture and exploit stock photoimages.

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.

Checklist for printing requirements may include:

- dot gain and dot gain curves
- inks and ink limits
- metadata requirements
- optimal screen frequency
- PostScript colour management
- profile - embedded or not
- screen
 - angles
 - halftone
 - ruling
 - stochastic
- stock
- transfer function.

Appropriate person/s may include:

- staff at pre-press trade houses/bureaux
- staff within pre-press sections of printing companies.

Software may include

- colour management software
- computer aided design/drafting (CAD) software
- densitometry/spectrophotometry software
- drawing/graphics software
- page layout/page description software
- profile creating software
- scanner profiling software.

Appropriate pre-press

- generating output profiles that allow for:

RANGE STATEMENT

processing techniques may include:

- achromatic reproduction
- black generation
- black values
- dot gain
- total gradients
- Under Colour Removal (UCR), Under Colour Addition (UCA) or varying levels of Grey Component Replacement (GCR), including skeleton black.
- printing appropriate test charts:
 - 3- and 4-colour neutrals
 - CMYK colour scales
 - colour swatches
- providing combined images in editable/adjustable formats
- providing combined images in security enabled/locked formats
- providing scans in appropriate resolution:
 - low resolution FPO (for position only)
 - high resolution.
 - saving colour in required formats
- using appropriate digital proofing devices:
 - densitometers
 - spectrophotometers (including strip reader style devices)
- using appropriate ICC profiles
- using templates correctly.

Stock may include:

- high-groundwood
- newsprint
- standard uncoated
- super calendared uncoated
- uncoated.

Press may include:

- gravure
- heatset offset
- image setters
- sheetfed offset

RANGE STATEMENT

- waterless sheetfed
- web press offset (rollfed).

Appropriate format may include:

- bit depth
- compression options
- encoding
- file format/extension
 - Electronic PostScript (EPS)
 - Portable Document Format (PDF)
 - 1 Tagged Image File Format (TIFF)
- PostScript level
- resolution
 - dots per inch
 - lines per inch
 - pixels per inch
 - sample points per inch
 - spots per inch.

Unit Sector(s)

Not Applicable

Competency field

Competency field

Design and Visual Communication - Photoimaging