

## Demonstrate knowledge of digital photography, operate a camera and prepare images for production

**Level** 3

**Credits** 20

**Purpose** People credited with this unit standard are able to: demonstrate knowledge of digital photography for digital processes, and maintain and configure a digital still camera, in accordance with workplace practices; present photographs using a digital still camera for digital processes; download and manipulate images; and open and print a range of images saved from a digital still camera.

**Subfield** Printing

**Domain** Digital Processes for Print

**Status** Registered

**Status date** 12 December 2008

**Date version published** 12 December 2008

**Planned review date** 31 December 2011

**Entry information** Open.

**Accreditation** Evaluation of documentation and visit by NZQA and industry.

**Standard setting body (SSB)** Competenz

**Accreditation and Moderation Action Plan (AMAP) reference** 0005

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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### Special Notes

- 1 Candidates must follow any applicable and recognised codes of practice, and documented procedures for health, safety and environment matters; and meet the obligations of current law including the Health and Safety in Employment Act 1992, Resource Management Act 1991, Privacy Act 1993, Copyright Act 1994, and their subsequent amendments.
- 2 *Workplace practices* refer to the documented procedures for the workplace or classroom situation. These will include procedures for the use of machinery and equipment, as well as product specifications and job instructions in order to meet the job's requirements.

- 3 A dedicated still camera refers to either a compact digital camera or a single lens reflex digital still camera.
- 4 Candidates will be expected to demonstrate knowledge of both a compact digital camera, and a single lens reflex digital still camera in element 1, but the operation and presentation of images in elements 2, 3, 4 and 5 can be achieved by using one or both of these.
- 5 Any appropriate software available in the workplace may be used for downloading, manipulating and printing images.
- 6 Relevant International Standards Organisation (ISO) requirements include but are not limited to – ISO 5800:1987, ISO 6:1993, ISO 2240:2003.

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## Elements and performance criteria

### Element 1

Demonstrate knowledge of digital photography for digital processes in accordance with workplace practices.

#### Performance criteria

- 1.1 Demonstration of knowledge includes a description of the differences between a compact digital camera and a single lens reflex digital camera.
- 1.2 Demonstration of knowledge includes a description of the resolution of a digital image, and a description of its relationship to file size, and the proposed final use of the image.
- 1.3 The different formats of images are identified and described in terms of the advantages and disadvantages of each format.  
  
Range includes but is not limited to – JPEG (joint photographic experts group), RAW (image file), Tiff (tagged image file format), PSD (proportional sum derivative), EPS (encapsulated PostScript).
- 1.4 Demonstration of knowledge includes descriptions of optical zoom and digital zoom.
- 1.5 Demonstration of knowledge includes a description of colour spaces in terms of colours in images.  
  
Range includes but is not limited to – sRGB (standard red, green, blue), RGB (red, green, blue), AdobeRGB, CMYK (cyan, magenta, yellow, black).
- 1.6 Demonstration of knowledge includes a description of light in terms of its temperature, and the effect on perceived colour.

- 1.7 Demonstration of knowledge includes a description of depth of field in terms of its effect on a photographic image.
- 1.8 Demonstration of knowledge includes a description of the effects of different lenses and filters in terms of their effects on photographic images.
- Range may include but is not limited to – fixed, zoom (telephoto), panoramic (wide angle), close up (macro), UV (ultra-violet), polarising, IR (infra-red), neutral density.
- 1.9 Demonstration of knowledge includes a description of 8, 16 and 32 bit images in terms of their editability and quality.
- 1.10 Demonstration of knowledge includes a description of the effects of aperture, shutter speed and relevant International Standards Organisation requirements in terms of their effects on photographic images.

## Element 2

Maintain and configure a digital still camera in accordance with workplace practices.

### Performance criteria

- 2.1 Camera is maintained and is set up ready for use.
- Range may include but is not limited to – memory card, batteries, cleaning, handling, storage, file format, file size.
- 2.2 Camera settings are configured and adjusted according to photographic situations.
- Range may include but is not limited to – sensitivity modes, exposure controls, focus, white balance, metering mode, zoom.

## Element 3

Present photographs using a digital still camera for digital processes.

### Performance criteria

- 3.1 Presented photographs demonstrate a range of photographic situations.
- Range situations include but are not limited to – architecture, landscape, portrait, action, close-up, product.
- 3.2 Presented photographs demonstrate technical considerations of photography.
- Range technical considerations include but are not limited to – correct focus, depth of field, exposure, movement, sharpness, colours, resolution, tonal range, composition.

3.3 Presented photographs demonstrate that a range of photographic modes have been used.

Range may include but is not limited to – manual and/or automatic modes, programme modes.

#### **Element 4**

Download and manipulate images from a digital still camera in accordance with workplace practices.

#### **Performance criteria**

4.1 Images are downloaded and viewed electronically.

4.2 Image files are saved and appropriately named for retrieval.

4.3 Images are digitally adjusted to meet job requirements.

Range: may include but is not limited to – designer, customer, or branding requirements; printing process;  
includes but is not limited to – contrast, brightness, colours, lightness, composition, red eye, blemishes/spots removed, sharpened.

4.4 Images are formatted to specifications, and are saved appropriately.

Range physical size, resolution, format, colour space, bit depth.

#### **Element 5**

Open and print a range of images saved from a digital still camera.

#### **Performance criteria**

5.1 A range of saved still images is opened and printed to given specifications on/in specified media.

Range range of images includes but is not limited to – architecture, landscape, portrait, action, close-up, product;  
evidence of 10 images is required.

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#### **Please note**

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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### **Comments on this unit standard**

Please contact [Competenz info@competenz.org.nz](mailto:Competenz info@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.