Gold - Unit 15 - Imaging Software

Relevant LINKS

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Handbook home page **[2]**

Overview

This is the ability to use a software application designed for the creation, editing and production of images. This unit is about the skills and knowledge required by an IT User to use a range of basic image editing and design tools and techniques to produce appropriate, straightforward or routine image files. Any aspect that is unfamiliar will require support and advice from others.
Imaging tools and techniques will described as ‘basic’ because:

- the software tools and functions will be predetermined or commonly used; and
- the techniques needed for image manipulation and outputting will be straightforward or routine.

Example of context: Using imaging software to design a logo or banner for school website.

Activities supporting the assessment of this award

Assessor's guide to interpreting the criteria

General Information

QCF general description for Level 2 qualifications

- Achievement at QCF level 2 (EQF Level 3) reflects the ability to select and use relevant knowledge, ideas, skills and procedures to complete well-defined tasks and address straightforward problems. It includes taking responsibility for completing tasks and procedures and exercising autonomy and judgement subject to overall direction or guidance.
- Use understanding of facts, procedures and ideas to complete well-defined tasks and address straightforward problems. Interpret relevant information and ideas. Be aware of the types of information that are relevant to the area of study or work.
- Complete well-defined, generally routine tasks and address straightforward problems. Select and use relevant skills and procedures. Identify, gather and use relevant information to inform actions. Identify how effective actions have been.
- Take responsibility for completing tasks and procedures subject to direction or guidance as needed.

Requirements

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- Standards must be confirmed by a trained Gold Level Assessor or higher
- Assessors must at a minimum record assessment judgements as entries in the on-line mark book on the INGOTs.org certification site.
- Routine evidence of work used for judging assessment outcomes in the candidates' records of their day to day work will be available from their e-portfolios and on-line work. Assessors should ensure that relevant web pages are available to their Account Manager on request by supply of the URL.
- When the candidate provides evidence of matching all the criteria to the specification subject to the guidance below, the assessor can request the award using the link on the certification site. The Account Manager will request a random sample of evidence from candidates' work that verifies the assessor's judgement.
- When the Account Manager is satisfied that the evidence is sufficient to safely make an award, the candidate's success will be confirmed and the unit certificate will be printable from the web site.
- This unit should take an average level 2 learner 40 hours of work to complete.

Assessment Method

Assessors can score each of the criteria L, S, H. N indicates no evidence and is the default starting position. L indicates some capability but secure capability has not yet been achieved and some help is still required. S indicates that the candidate can match the criterion to its required specification. H indicates performance that goes beyond the expected in at least some aspects. Candidates are required to achieve at least S on all the criteria to achieve the unit.

Expansion of the assessment criteria

1. The candidate will obtain, insert and combine information for images.

1.1 I can describe what images are needed

Candidates should be able to identify and describe suitable images for a task.
Evidence: From candidates' projects and documentation. Assessor observations.

Additional information and guidance
Images might be components of a final project or starting points that can be modified. OpenClipArt.org [3] and the Wikimedia Commons [4]are good sources of images that are for sharing and so copyright is less of an issue. Where possible, candidates should use vectors as starting points because they are easier to edit and resolution independent. .svg is the open XML based standard for vectors and there are many examples available from the above links. Where original images need to be designed Inkscape [5] is a free cross-platform tool for .svg images with many excellent on-line tutorials.

1.2 I can obtain, input and prepare images to meet needs.

Candidates should be able to obtain their identified images and prepare them for use.

Evidence: From candidates' projects and documentation. Assessor observations.

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Additional information and guidance
Preparations could include checking sizes for file transfer, converting formats. Import can be by cut and paste, import or file opening. Some sense of identifying the needs should be evidenced. The learners could have a basic check list from a "customer" telling them certain features such as size, colours, content etc. For example, a logo for a company might need to have specific colours that are determined by the company before hand.

1.3 I can describe what copyright and other constraints apply to the use of images.

Candidates should be able to check images for copyright restrictions and any other constraints to using the image such as it being in an unsupported file format.

Evidence: Images used and project evidence presentation.

Additional information and guidance
Copyright licensing can be very complex. Candidates, however, need to show a basic awareness of how it applies to their work and the images they find and use. Encourage knowledge and support for Creative Commons and public domain sources as this reduces the administrative overhead for everyone.

1.4 I can use appropriate techniques to organise and combine information of different types or from different sources

Candidates should demonstrate that they can combine different information from different sources into their project with a certain level of skill.

Evidence: References for sources of information. Project outcomes, assessor observations.

Additional information
Work should include mixing graphic types, sourcing images from different devices, e.g. cameras or open clip art. .svg and other vector formats usually allow .jpg or .png images to be embedded within a file. Proprietary formats such a PSD should be avoided for final output as these are likely to be restricted by what software can display these images. The international open standards of .jpg, .png and .svg can cover all 2D graphics requirements and all can be displayed directly in web pages (.svg is still not as well supported especially in older browsers but support is improving) There are free cross-platform editors for all three formats.

1.5 I can describe the context in which the images will be used

Candidates should demonstrate that they can identify and describe a context such as product promotion, information to customers, illustration of my work.

Evidence: References for sources of information. Project outcomes.

Additional information
The context for work will vary but the type of image used should be suitable. e.g. humorous images will be inappropriate in a serious context. Context can be interpreted in terms of the intended audience. Candidates should be able to describe the use of the images in relation to the context clearly and without intervention.

1.6 I can describe what the file format to use for saving images to suit different presentation methods

As a minimum candidates should be familiar with .jpg, .png and .svg as the international open standards for images.

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Evidence: References in documentation and the nature of final products.

Additional information
There are a large number of proprietary and incompatible graphic formats. For photographic images that are to be displayed in web pages .jpg should be used. Jpg (Jpeg) trades off quality against size of file. If a large high resolution image is required for professional photographic work on paper .jpg files will still be large and once reduced in file size can not be brought back to the original size without the original file. Another disadvantage of jpg is that it does not support image transparencies such that the background can show through. This means logos can be left with undesirable border around them if they are on a background that is a different colour from the main display background. .png can be used to get around this problem because png does support transparency. Although .png files are compressed they always keep all the original data so that you can get back to the original. This means in situations where it is critical to make the file size as small as possible (e.g. when the image has to be transferred over a low bandwidth connection or storage space is at a premium, jpg will be better. GIMP [6] can edit and convert a very wide range of images between proprietary and open formats and it is free. On-line convertors [7] are also freely available. SVG - scalable vector graphics - should be used to design logos, diagrams and illustrations. Indeed just about anything that is not a photograph or scanned image. Any .svg image is likely to be small in file size and can be scaled to any output device from high resolution images for paper to large screen TVs. The files stay the same size and the images will be as crisp as the display device is capable of producing. Furthermore, .svg images can be exported to .png from Inkscape [8] and from .png converted to jpg if required in those formats. An increasing number of applications support SVG and it is likely to become increasingly important.

The new G [9]uetzli [10] file type could be a way to get around the limitations in quality of .jpg.

1.7 I can store and retrieve files effectively, in line with local guidelines and conventions where available

Candidates should demonstrate that they can organise their graphics files in sensible ways that make it easier to find them.

Evidence: Candidates directories, observed by assessors. Candidates on-line accounts on the INGOT learning site.

Additional information
The main point of this criterion is to encourage good information management. Different people have different ways of working and we need to be flexible. Local guidelines and policies should be observed and verified as being observed by the assessor. Backups should be taken where appropriate.

2. The candidate will use imaging software tools to create, manipulate and edit images.

2.1 I can identify what technical factors affecting images need to be taken into account and how to do so.

Candidates should be able to demonstrate a good understanding of the key technical factors affecting their creation of images.

Evidence: File outputs from candidate work.

Additional information and guidance
Candidates need to show their basic understanding of the technical environment available to them, such as software packages and equipment, and use this when deciding what images to create and

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why. They also need to understand that images are all made from small picture elements, or Pixels [11]. The exact tools used will be determined locally by availability but we want to discourage the use of raster image editors to originate clip art and diagrams. Using object oriented vectors is both more efficient and makes image reuse much more flexible. Of course some images such as photographs and scanned images need to be done using cameras or scanners.

2.2 I can select and use suitable techniques to create images.

Candidates should be able to demonstrate a range of techniques in image creation and management.
Evidence: Candidates finished products and their documentation.

Additional information and guidance
In keeping with Level 2 candidates should be capable of using a range of tools to edit and manipulate images self-sufficiently. If dealing with vector graphics, grouping and ungrouping, selecting components copying and deleting should be clearly evidenced. Use of undo should be routine and familiar. Grouping and ungrouping will be useful in using background transparencies to build up the layers of an image.

2.3 I can use guide lines and dimensioning tools appropriately to enhance precision

Candidates should be able to demonstrate use of image enhancement and precision tools

Evidence: Candidates' finished projects and documentation of projects, assessor observations.
Additional information and guidance
Candidates need to get into the habits of working to specifications which are precise and specific. Using dimensioning tools will ensure that the finished product is exactly as requested, for example if a client has a particular brand that needs to be adhered to. Guide lines will ensure that images keep within imposed limits and ensure that the end product is fit for purpose.

2.4 I can select and use appropriate tools and techniques to manipulate and edit images.

Candidates should be able to demonstrate a range of techniques in image creation and management.
Evidence: Candidates finished products and their documentation.

Additional information and guidance
A range of tools and filters need to be demonstrated, in line with the final output specification, to show that students are competent and comfortable with self-sufficiently producing semi-professional images. Where possible, some reflection and commentary on the suitability would help to show their clear understanding. For example, they could use filters for adding drop shodows and a "supernova"as show below.

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2.5 I can check images meet needs, using IT tools and making corrections as necessary.

Candidates should be able to demonstrate an awareness of needs and a demonstration of the process leading to final production.
Evidence: Candidates finished products and their documentation.

Additional information and guidance
Use of a reflective journal such as the e-portfolio on the Learning Site or similar would be useful for students to document and reflecting on the design process and also evidence their understanding of this criterion. They should be able to demonstrate a journey from initial ideas, such as basic sketches or thoughts, through revisions to a final design.

2.6 I can identify and respond to quality problems with images to make sure they meet needs.

Candidates should be able to demonstrate an iterative process of image production.
Evidence: Candidates finished products and their documentation.

Additional information and guidance
Where appropriate, it would be useful for students to work on a client brief. This will ensure that they can submit various draft proposals of their image work for comment and feedback. This will then allow them to respond to feedback and make corrections in order to meet the final design brief. A good example might be to design a logo for a school department. A science one might include various scientific tools in the logo.

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Moderation/verification

The assessor should keep a record of assessment judgements made for each candidate and make notes of any significant issues for any candidate. They must be prepared to enter into dialogue with their Account Manager and provide their assessment records to the Account Manager through the on-line mark book. They should be prepared to provide evidence as a basis for their judgements through reference to candidate e-portfolios. Before authorising certification, the Account Manager must be satisfied that the assessors judgements are sound.

Source URL: https://theingots.org/community/sil2u15x

Links
[1] http://theingots.org/community/ITQ_UNIT_development
[2] http://theingots.org/community/handbook2
[3] http://openclipart.org/
[4] http://commons.wikimedia.org/wiki/Main_Page
[5] https://inkscape.org/en/download/
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[10] http://www.linux-magazine.com/Issues/2018/207/Guetzli
[11] https://simple.wikipedia.org/wiki/Pixel

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