

## ECDL ImageMaker

### Test Goals:

The ECDL ImageMaker test requires the Candidate to understand some of the main concepts underlying digital images and be competent in using an image editing application. The Candidate should be able to carry out tasks such as opening an existing image, capturing an image, selecting all or part of an image, and manipulating an image. In addition, the candidate should be able to use layers, format text, create drawn objects, paint on an image, and use effects and filters. Finally, the Candidate should be able to prepare an image for printing or publishing on the World Wide Web.

Category	Skill Set	Ref.	Task Item
1.1 Imaging Fundamentals	1.1.1 Use of Images	1.1.1.1	Identify some uses of digital images: Web publishing, distribution by e-mail, home printing.
		1.1.1.2	Describe some of the main functions of digital image editing applications: image enhancement, image creation, preparation for Web publishing.
		1.1.1.3	Define and understand the term copyright. Understand that images subject to copyright cannot be used without the permission of the holder of copyright.
	1.1.2 Digital Image	1.1.2.1	Identify the key features of a digital image: composed of discrete pixels, represented digitally in binary code.
		1.1.2.2	Define and understand the term pixel.
		1.1.2.3	Define and understand the term resolution.
	1.1.3 Colour	1.1.3.1	Define and understand the common colour models: HSB, RGB, CMYK
		1.1.3.2	Define and understand the terms hue, saturation, colour balance.
		1.1.3.3	Define and understand the term palette.
		1.1.3.4	Define and understand the term colour depth.
		1.1.3.5	Define and understand the term transparency.
		1.1.3.6	Define and understand the terms contrast, brightness, gamma.
		1.1.3.7	Define and understand the term graphics mode.
	1.1.4 Graphic Formats	1.1.4.1	Define and understand the terms raster and vector graphics and distinguish between them.
		1.1.4.2	Define and understand the term lossless graphic format. Identify the main lossless graphic format types: BMP, GIF, PNG.
		1.1.4.3	Define and understand the term lossy graphic format. Identify the main lossy graphic format types: JPEG, JPEG2000.
1.1.4.4		Recognize the proprietary format of common digital image editing applications: PSD, PSP, XCF, CPT.	

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<b>1.2 Getting Started</b>	<i>1.2.1 First Steps</i>	1.2.1.1	Open an image editing application and open one, several image files in different formats.
		1.2.1.2	Create an image file.
		1.2.1.3	Set parameters for image file creation: colour depth, resolution, background colour, size.
		1.2.1.4	Switch between open image files.
		1.2.1.5	Save an image under a new name and in a different format to a location on a drive.
		1.2.1.6	Close one, several image files without exiting the application.
		1.2.1.7	Use available Help functions.
		1.2.1.8	Close the image editing application.
<b>1.3 Main Operations</b>	<i>1.3.1 Settings</i>	1.3.1.1	Use the zoom tool.
		1.3.1.2	Select image background colour, foreground colour.
		1.3.1.3	Set grid properties: units, horizontal spacing, vertical spacing, colour.
	<i>1.3.2 Capture and Save an Image</i>	1.3.2.1	Open a scanning application and scan an image (preview, set scanning parameters, scan, save.)
		1.3.2.2	Use the print screen facility to capture a full screen, an active window. Save the captured image to a location on a drive.
		1.3.2.3	Save an image from a digital camera.
		1.3.2.4	Save an image from a Web page, image library.
	<i>1.3.3 Selection Tools</i>	1.3.3.1	Select an entire image.
		1.3.3.2	Set selection tool properties: relationship between multiple selections, feathering, antialiasing.
		1.3.3.3	Select part of an image: rectangular image selection, elliptic image selection, magic wand image selection, magnetic lasso image selection, freehand image selection.
	<i>1.3.4 Image Manipulation</i>	1.3.4.1	Resize an image in pixels, measurement units.
		1.3.4.2	Rotate an image, selection within an image.
		1.3.4.3	Duplicate an image, selection within an image
1.3.4.4		Move images, selection within an image.	
1.3.4.5		Crop an image.	

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		1.3.4.6	Change the canvas size of an image.	
<b>1.4 Working with Images</b>	<i>1.4.1 Layers</i>	1.4.1.1	Define and understand the term layer.	
		1.4.1.2	Create a layer.	
		1.4.1.3	Duplicate a layer.	
		1.4.1.4	Delete a layer.	
		1.4.1.5	Arrange layers.	
		1.4.1.6	Merge layers.	
		1.4.1.7	Convert a drawn object to a raster layer.	
		1.4.1.8	Set layer properties: hide/unhide, lock, name, opacity, blending mode.	
	<i>1.4.2 Text Formatting</i>	1.4.2.1	Add text.	
		1.4.2.2	Duplicate text.	
		1.4.2.3	Move text.	
		1.4.2.4	Delete text.	
		1.4.2.5	Align text left, centre, right, justified.	
		1.4.2.6	Modify font type, font size, font colour.	
	<i>1.4.3 Drawing Tools</i>	1.4.3.1	Add, choosing line weight, style, and colour, different types of line to an image: straight line, free drawn line, curves.	
		1.4.3.2	Add, choosing style and colour, different types of shape to an image: rectangle, ellipse, n-sided polygon.	
		1.4.3.3	Change properties of a drawn object: colour, style, line weight.	
		<i>1.4.4 Painting Tools</i>	1.4.4.1	Pick up a colour value with the dropper.
			1.4.4.2	Fill a portion of an image with the gradient tool, selecting opacity/transparency, radial, linear, position, rotation.
	1.4.4.3		Colour a portion of an image with the paintbrush tool, selecting colour, shape, size.	
	<i>1.4.5 Effects and Filters</i>	1.4.4.4	Erase a portion of an image with the eraser tool, selecting its shape and size.	
		1.4.5.1	Apply artistic effects: stained glass, pixelate, emboss.	
		1.4.5.2	Apply blur effects: gaussian, motion.	
		1.4.5.3	Apply distortion effects: wind, ripple, swirl.	
			1.4.5.4	Apply render effects: lighting, flare.

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		1.4.5.5	Apply adjustments: brightness-contrast, hue-saturation, colour balance.
<b>1.5 Outputs</b>	<i>1.5.1 Printing Images</i>	1.5.1.1	Preview an image
		1.5.1.2	Choose print output options: paper size, orientation.
		1.5.1.3	Print an image from an installed printer using defined options, default settings.
	<i>1.5.2 Publishing on the Web</i>	1.5.2.1	Change colour depth, image size to ensure an acceptable download time.
		1.5.2.2	Define and understand the term interlacing.