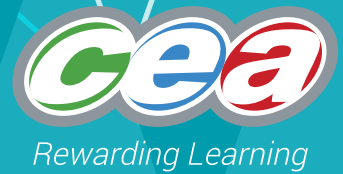


FACTFILE: GCSE DIGITAL TECHNOLOGY



Unit 2

DIGITAL AUTHORING CONCEPTS



Multimedia Authoring

Learning Outcomes

Students should be able to:

- demonstrate understanding of how folders can assist in asset management;
- create and use the following media types: video, animation and sound;
- integrate different optimised media into a multimedia solution, including animation, video, sound, images and text;
- describe the impact of non-optimised resources on package performance.

How folders can assist in asset management

When designing and creating a multimedia product, it is very important to organise the assets. An asset is a file such as an image or a video that is incorporated into the product. In a large product, there will be many images, animations, sounds etc. All files must be given meaningful and appropriate names and saved in folders which are also appropriate names. This ensures that when a team of people are working together on a project, each member of the team can find exactly what they are looking for as it is saved in an obvious folder as an obvious name.

Activity: Consider how the following set of files could be stored more efficiently.

Name	Date modified	Type	Size
._private	05/01/2016 14:15	File folder	
images	19/01/2016 11:49	File folder	
photogallery	05/01/2016 14:43	File folder	
aboutus	13/01/2016 13:26	HTML Document	7 KB
embed	13/01/2016 13:26	HTML Document	2 KB
facebook	02/02/2016 13:25	JPEG Image	3 KB
favorite	05/01/2016 14:34	HTML Document	7 KB
feedback	05/01/2016 14:34	HTML Document	9 KB
index	02/02/2016 15:13	HTML Document	8 KB
interest	05/01/2016 14:34	HTML Document	7 KB
logo	05/01/2016 14:34	JPEG Image	11 KB
My Movie	10/04/2017 13:15	MPEG-4 Movie	2,090 KB
photo	05/01/2016 14:34	HTML Document	6 KB
video	27/01/2016 13:15	MPEG-4 Movie	1,456 KB

Use of Video, Animation & Sound

Video:

Video editing software allows you to record or import your video footage and then edit it into a movie. You can add titles, add audio, add still images and delete or cut any footage you don't want. Some packages also allow you to add in different effects such as colour correction, slowing down footage, speeding up footage etc. You should plan your video using a storyboard and ensure to test it fully afterwards.

There are lots of different video software packages available such as Movie Maker, iMovie or Sony Vegas.

Animation:

An animation is a moving image. You should plan your animation using a storyboard. A frame is a single image within the animation. An animation may be made up of several frames. Each frame will be displayed for a period of time. The speed the frames change at is known as the frame rate.

Software such as Adobe Flash or Toon Boon can be used to create animations.

Sound:

You can use a range of features within audio software to edit audio files such as:

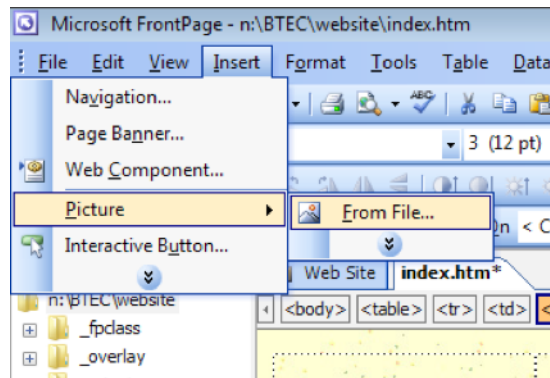
- silencing (removes background noise or unwanted sounds)
- copying and pasting
- mixing (merging two sounds file together)
- special effects e.g. fade-in, fade-out, echo, amplify

Software packages like Audacity, Cool Edit or AudioBoom can be used to record sound.

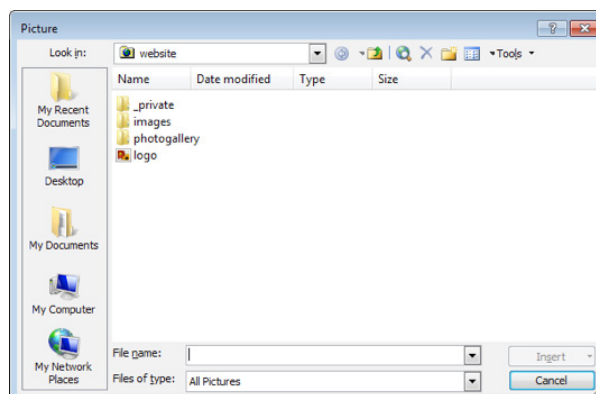
Integrate media into a multimedia solution

Inserting Animation & Images

- Save the animated gif or image into the same folder as your multimedia product. Give the filename an appropriate filename.
- Go to Insert > Picture > From file

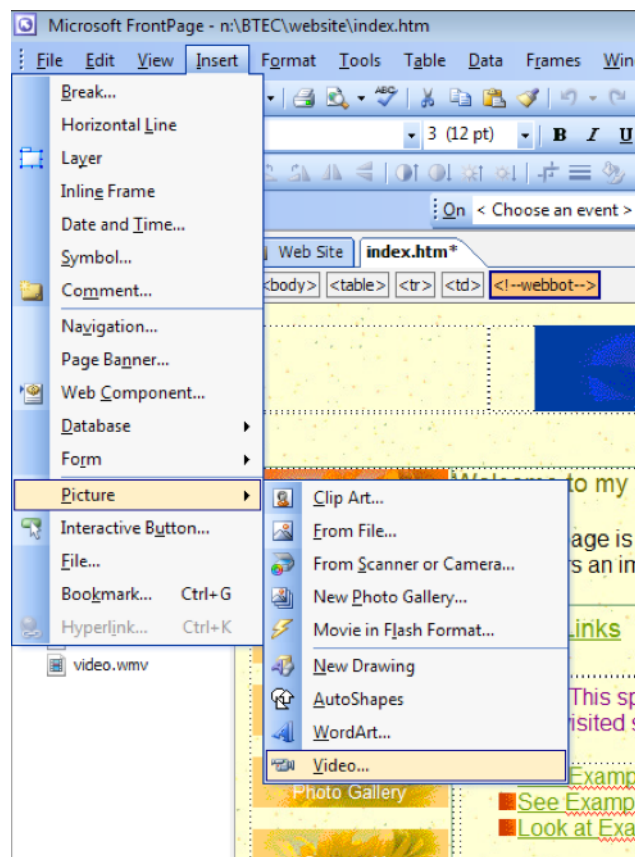


- Find where you have saved the file, select it and select Insert

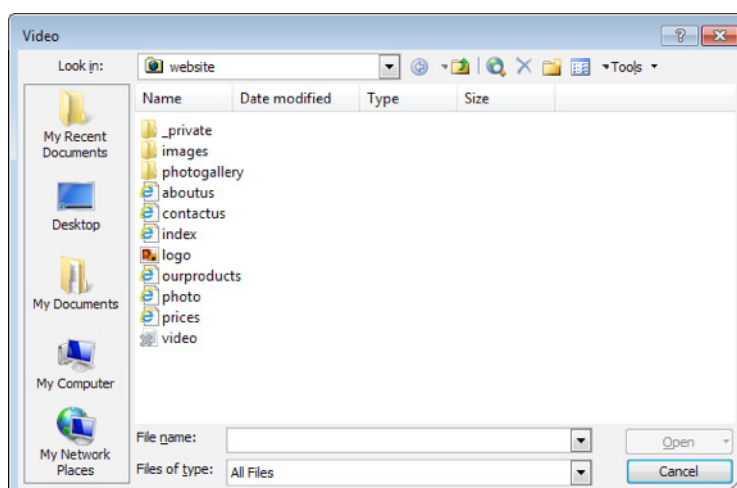


Inserting Video

- Save the video in the same folder as your multimedia product. Give the filename an appropriate filename.
- Go to Insert > Picture > Video



- Find where you have saved the file, select it and select Open



Inserting a Sound file

- Go to Insert > Web Component.
- Scroll down and select Advanced Controls, and then select ActiveX Control.
- Press the Next button.
- Click the Customize button, scroll all the way down, and select “Windows Media Player.”
- You should be back at the same list you saw a few seconds ago. Scroll all the way down and select Windows Media Player and press Finish. You will see a Windows Media player object visible in FrontPage.
- You can right click on the object, select ActiveX Control Properties, and customize the object to your liking

Impact of non-optimised resources on package performance:

Optimisation means reducing the physical size, file size and resolution of a resource in order to reduce download times. If resources are not optimised for use within packages it can cause problems. Download times will be increased causing frustration for the end user.

Why should resources be optimised?

- Improve download time
- Reduce bandwidth costs
- Reduce infrastructure costs

How can file size be reduced?

There are two types of compression: lossless and lossy. With lossless compression, every single bit of data that was originally in the file remains after the file is uncompressed. All of the information is completely restored. This is used for compressing text or spreadsheet files, where losing words or numerical data could present a problem.

On the other hand lossy compression reduces a file by permanently deleting certain information, from the file. This is generally used for video, sound and images where a certain amount of information loss will not be noticed by most users.

For a multimedia product, it is important that file sizes are optimised:

Graphic Element	<ul style="list-style-type: none"> • Save the image as a JPEG, GIF or PNG • Create a thumbnail • Crop the image to make it smaller
Sound file	<ul style="list-style-type: none"> • Save the file as a WAV, MP3 or WMA file
Video file	<ul style="list-style-type: none"> • Save the file as MPEG, MOV, WMV or AVI format
Animation	<ul style="list-style-type: none"> • Save the file as GIF or FLA

Resources:

<http://www.bbc.co.uk/education/subjects/zqmtsbk>

