



# Issues related to downloading files from *CSU Interact*

## Tips for teaching staff

Teaching staff need to be aware that not all students will have a broadband connection to *CSU Interact* – a number will still be using dial-up access from off-campus locations. Thought needs to be given to the size of files available for download in order to strike a balance between relatively short download times and reasonable file quality.

### File size

File sizes are measured in multiples of bytes, commonly kilobytes (kB), megabytes (MB) and gigabytes (GB)

1 MB  $\approx$  1000 kB

1 GB  $\approx$  1000 MB  $\approx$  1 000 000 kB

To determine the size of a file:

#### In Windows:

In “My Computer” either:

- from the **View** menu, choose **Details**. Size is shown against the file name, or
- right click the file name or icon and choose **Properties** – file size is shown under the **General** tab

#### On a Mac:

In “Finder”:

- use **Control** & click on the file. Choose **Get Info**.

### Connection Speed

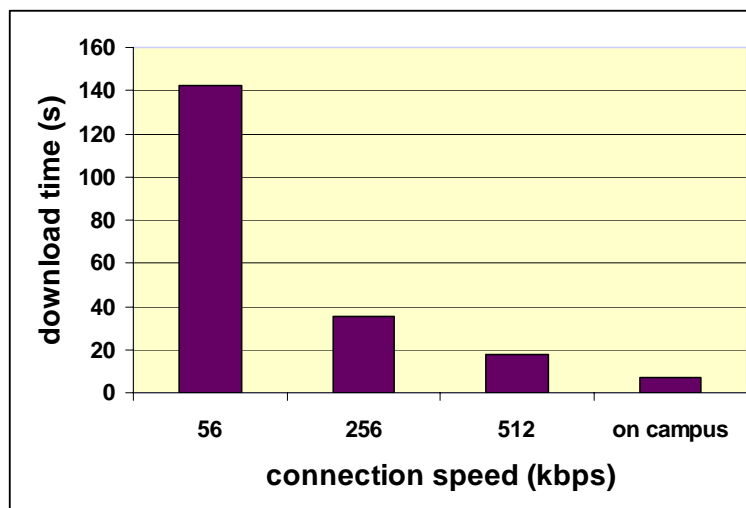
The speed of a network or internet connection is measured in kilobits per second (kbits/s or kbps). Typical dialup download speeds are no more than 56 kbps. The term “broadband” is generally taken to mean download speeds of at least 256 kbps. Download speed is usually the measure referred to because some technologies (eg ADSL) support much slower rates of upload as opposed to download rates. Speed across a network such as the CSU network is generally much faster than the speed of a broadband connection.

A number of websites that run tests of your connection speed are listed at

[http://au.dir.yahoo.com/Computers\\_and\\_Internet/Communications\\_and\\_Networking/Benchmarking/Bandwidth\\_Tests/](http://au.dir.yahoo.com/Computers_and_Internet/Communications_and_Networking/Benchmarking/Bandwidth_Tests/)

### Download time

The time taken to download a file depends upon the file size and the connection speed. Some typical times for a 1 MB file are show below:



## How to reduce file size

### Images

Make sure the image is in an appropriate format **before** it is inserted into a document or presentation.

- Use .jpg for photos or graphics with a range of colours and much detail
- Use .gif for graphics with few colours, or large areas of one colour
- Do not use .tiff or .bmp – files of these types will almost certainly be too large
- Use image editing software to convert between file types, reduce image dimensions or save a file as a lower quality, and hence of smaller size. Microsoft Photo Editor, Paint, Adobe Photoshop and iPhoto are examples. Paint or Photoshop. Go to **File > Save As** and select File Format “JPG”.

### Word documents and PowerPoint presentations

- Make sure that images have been reduced in size within image editing software (see above) before using them in a document – inserting a large image file results in a large document size even if the image has been shrunk in size by dragging at a corner. (Try it and see!)
- PowerPoint presentations can be converted to smaller pdf files if software such as Adobe Acrobat Professional is available. Remember to check the compression settings in your PDF software.

More tips on minimising PowerPoint files can be found at <http://office.microsoft.com/en-us/powerpoint/HA011168821033.aspx>

### Scanned documents

- The resolution of a scan is measured in dots per inch (dpi). Higher resolution results in a larger file.
- Use the scanner software to set the resolution to no more than 150 dpi
- Scan in black & white
- Save scanned images as .jpg or .gif (as above)
- Remember that scanned documents are read as images; they can be larger than a text file with the same information.

### Audio

Before uploading audio files to your *CSU Interact* site, make sure they are in a compressed, high-quality format such as MP3. If not, first use Sound Forge, Garageband, Audacity or other sound editing software to convert them. These programs are available free online and can be easily found with a Google search.

### Audio and video

- Consider “chunking” large audio and video files into smaller portions.
- If a video introduction or interview is used, consider making a smaller audio-only (e.g. mp3) file available as an alternative in case users have problems with video download due to file size.
- Provide a transcript of a scripted interview or presentation.