

# TSM543 Media Formats

## Lossy Images

Today we're going to experiment with lossy image compression, namely the JPEG (Joint Photographic Experts Group) file format

### ***Task 1: Check out the chroma subsampling information on SOL***

- a. Look at the example images, and use the sliders to view the changes. Can you detect any changes?
- b. Find and compress an image using photoshop. Zoom in – can you see the subsampling in action?

### ***Task 2: View the JPEG DCT in action***

- a. Visit [my DCT toy](#) in a web browser
- b. Click the image on the left to select a block of 8x8 pixels
- c. Which DCT coefficients are most active?
- d. Adjust the DCT or the image view with the mouse (left click sets positive, right click negative, middle click centres, scroll changes the value)

### ***Task 3: Compress a poor candidate image on photoshop***

- a. Pick an image that will compress poorly. What features might that have?
- b. Make the artefacts obvious by using a low-quality value (this will be one that uses less coefficients due to quantisation)
- c. What do these look like? Is there a better format for these types of image?