Mobile Systems

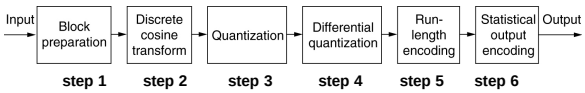
Lecture 4 – 17/03/15

Workshop 2: Image coding

COMP28512

Steve Furber & Barry Cheetham

JPEG image compression: Summary



MATLAB demonstration

- Course web-site has the following progs:
  - Lecture4tiledimageEncoder.m
  - Lecture4tiledimageDecoder.m
- Also a selection of image files.
- Encoder implements steps 1-3 & stores the resulting data in a file: 'imageData.dat'.
  - '4x4' I-tiles are combined in fours to give 8x8 I-tiles.
  - Similarly for Q-tiles.
- Decoder reads the data & reconstructs the image.
- No run-length coding has been implemented yet.
- No Huffman coding yet.
- Other aspects are shown to work.

Extra problem

Symbols A,B,C,D E,F,G have probabilities:

0.12, 0.13, 0.07, 0.07, 0.1, 0.36, 0.15

Devise a Huffman code & consider how it would be decoded..