

Practical 9: Run Length

Gearoid Mulligan: 19343146

Binary Compression

4runs.bin

Original Bits: 40

Compressed Bits: 32

Compression ratio: 4:5 20% compression

ASCII Compression

Abra.txt

Original Bits: 96

Compressed Bits: 416

Compression ratio: 416:96 -433.33% compression

Reason: My guess is that for this file there weren't any runs of data (sequences in which the same data value occurs in many consecutive data elements). As a result, the file size may have increased.

Test

Test.txt

Original Bits: 664

Compressed Bits: 2664

Compression ratio: 2664:664 -401% compression

Bitmap Compression

q32x48.bin

Original Bits: 1536

Compressed Bits: 1114

Compression ratio: 1114:1536 27.47% compression

Bitmap Compression

q64x96.bin

Original Bits: 6144

Compressed Bits: 2296

Compression ratio: 6144:2296 62.6% compression

Reason for greater compression: I think that the 64x96 bin had more runs of data than the 32x48 bin and hence it was able to significantly reduce the size of the file.

