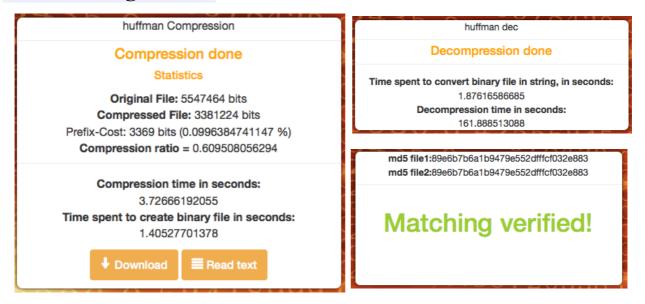# Following are the results of the Test Phase.

Small Input File:
File weight: about 700 kb
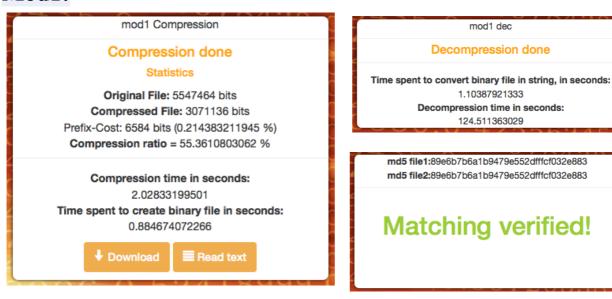
Huffman Algorithm:

huffman Compression

Compression done

Statistics

Original File: 5547464 bits
Compressed File: 3381224 bits
Prefix-Cost: 3369 bits (0.0996384741147 %)
Compression ratio = 0.609508056294

Compression time in seconds:
3.72666192055
Time spent to create binary file in seconds:
1.40527701378

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huffman dec

Decompression done

Time spent to convert binary file in string, in seconds:
1.87616586685
Decompression time in seconds:
161.888513088

md5 file1:89e6b7b6a1b9479e552dfffcf032e883
md5 file2:89e6b7b6a1b9479e552dfffcf032e883

Matching verified!

Time spent to compress: about 5 seconds
Time spent to decompress: about 3 minutes
RESULTS: OK

Mod1:

mod1 Compression

Compression done

Statistics

Original File: 5547464 bits
Compressed File: 3071136 bits
Prefix-Cost: 6584 bits (0.214383211945 %)
Compression ratio = 55.3610803062 %

Compression time in seconds:
2.02833199501
Time spent to create binary file in seconds:
0.884674072266

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mod1 dec

Decompression done

Time spent to convert binary file in string, in seconds:
1.10387921333
Decompression time in seconds:
124.511363029

md5 file1:89e6b7b6a1b9479e552dfffcf032e883
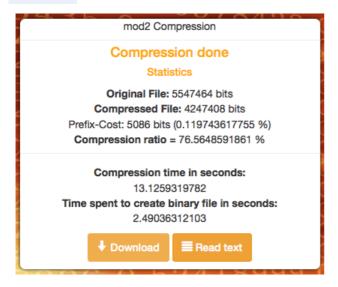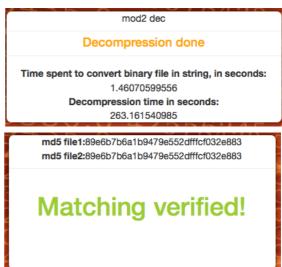**md5 file2:**89e6b7b6a1b9479e552dfffcf032e883

Matching verified!

Time spent to compress: about 3 seconds
Time spent to decompress: about 2 minutes
RESULTS: OK

Mod2:

mod2 Compression

Compression done

Statistics

Original File: 5547464 bits
Compressed File: 4247408 bits
Prefix-Cost: 5086 bits (0.119743617755 %)
Compression ratio = 76.5648591861 %

Compression time in seconds:
13.1259319782
Time spent to create binary file in seconds:
2.49036312103

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mod2 dec

Decompression done

Time spent to convert binary file in string, in seconds:
1.46070599556
Decompression time in seconds:
263.161540985

md5 file1:89e6b7b6a1b9479e552dfffcf032e883
md5 file2:89e6b7b6a1b9479e552dfffcf032e883

Matching verified!
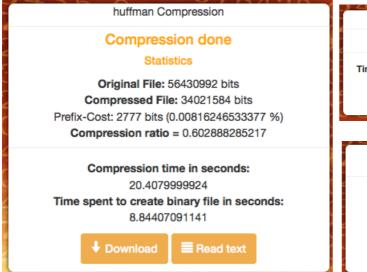
Time spent to compress: about 15 seconds
Time spent to decompress: about 4 minutes
RESULTS: OK

Medium Input File:

File weight: about 7 mb

Huffman Algorithm:

huffman Compression

Compression done

Statistics

Original File: 56430992 bits
Compressed File: 34021584 bits
Prefix-Cost: 2777 bits (0.00816246533377 %)
Compression ratio = 0.602888285217

Compression time in seconds:
20.4079999924
Time spent to create binary file in seconds:
8.84407091141

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huffman dec

Decompression done

Time spent to convert binary file in string, in seconds:
12.1826870441
Decompression time in seconds:
1056.75027108

md5 file1:25cb56cbcee9e1cd33904aca4f85e1ce
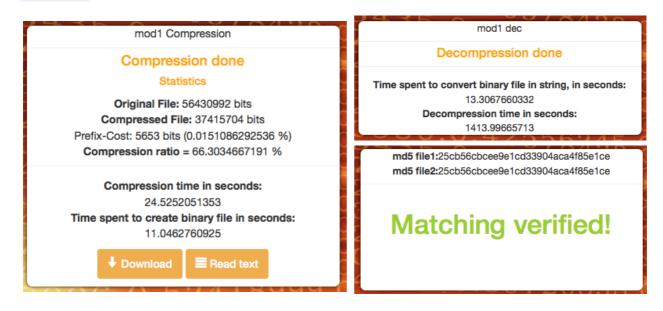**md5 file2:**25cb56cbcee9e1cd33904aca4f85e1ce

Matching verified!

Time spent to compress: about 30 seconds
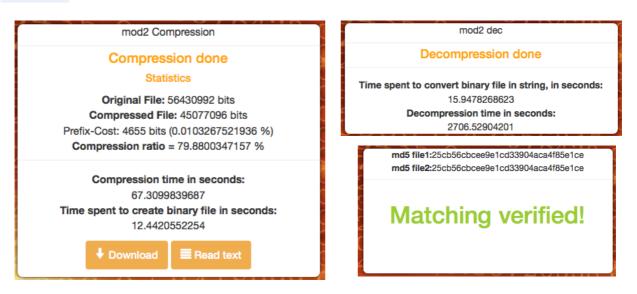**Time spent to decompress**: about 18 minutes
RESULTS: OK

Mod1:

Time spent to compress: about 35 seconds
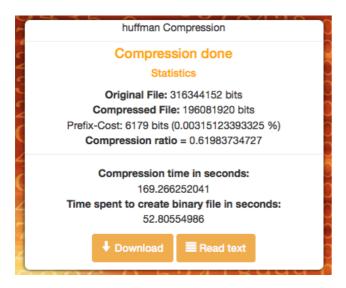**Time spent to decompress**: about 25 minutes
RESULTS: OK

Mod2:

Time spent to compress: about 80 seconds
Time spent to decompress: about 45 minutes
RESULTS: OK

Big Input File:
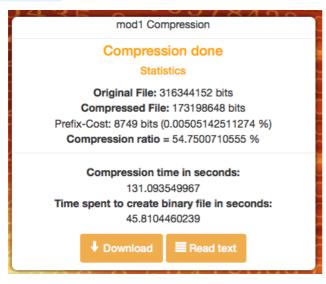
File weight: about 40 mb

Huffman Algorithm:

huffman Compression

Compression done

Statistics

Original File: 316344152 bits
Compressed File: 196081920 bits
Prefix-Cost: 6179 bits (0.00315123393325 %)
Compression ratio = 0.61983734727

Compression time in seconds:
169.266252041
Time spent to create binary file in seconds:
52.80554986

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huffman dec

Decompression done

Time spent to convert binary file in string, in seconds:
67.9857389927
Decompression time in seconds:
11755.3811381

md5 file1:c70f6ad653428647d42e559d4fde030a
md5 file2:c70f6ad653428647d42e559d4fde030a

Matching verified!

Time spent to compress: about 4 minutes
Time spent to decompress: about 3 hours
RESULTS: OK

Mod1:

mod1 Compression

Compression done

Statistics

Original File: 316344152 bits
Compressed File: 173198648 bits
Prefix-Cost: 8749 bits (0.00505142511274 %)
Compression ratio = 54.7500710555 %

Compression time in seconds:
131.093549967
Time spent to create binary file in seconds:
45.8104460239

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mod1 dec

Decompression done

Time spent to convert binary file in string, in seconds:
61.6462957859
Decompression time in seconds:
12947.803489

md5 file1:c70f6ad653428647d42e559d4fde030a
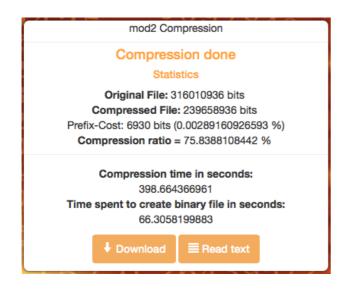**md5 file2:**df30ee72f6c5f77ac385d98eb551c7cd

Matching not verified!

Time spent to compress: about 3 minutes
Time spent to decompress: about 3 hours and half.
RESULTS: NOK

Mod2

mod2 Compression

Compression done

Statistics

Original File: 316010936 bits
Compressed File: 239658936 bits
Prefix-Cost: 6930 bits (0.00289160926593 %)
Compression ratio = 75.8388108442 %

Compression time in seconds:
398.664366961
Time spent to create binary file in seconds:
66.3058199883

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mod2 dec

Decompression done

Time spent to convert binary file in string, in seconds:
83.2169699669
Decompression time in seconds:
16682.9344611

md5 file1:74975a7bcd561baf768a2d957824e389
md5 file2:9edf79b783cd18655cb120c22d30b7ce

Matching not verified!

Time spent to compress: about 8 minutes
Time spent to decompress: about 5 hours.
RESULTS: NOK

Very big Input File

Test not executed yet.
Maybe it's better spend time to optimize the decompression code before.