12-10-1997

Optimal Block Encoding and Optimal Entropy for Lossless Image Compression

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THESIS APPROVAL

The abstract and thesis of Larry Ray Dennis for the Master of Science degree in Electrical and Computer Engineering were approved on August 5, 1997 and accepted by the thesis committee and the department.

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ABSTRACT

An abstract for the thesis of Larry Ray Dennis for the Master of Science in Electrical and Computer Engineering presented August 5, 1997

Title: OPTIMAL BLOCK ENCODING AND OPTIMAL ENTROPY FOR LOSSLESS IMAGE COMPRESSION

In this thesis, a novel approach is designed using a quad-tree stack structure to encode the image to determine the optimal block size at the optimal and effective entropy in the lossless image compression method. Proof is given through encoding of the predictor and randomly constructed planes. There is a high degree of relationship between the placement of bits in the planes.

Clearly results shows that use of the optimal entropy and encoding block sizes will increase the compression ratio using the lossless method. The cost of using the block size methods to encoding and entropy is discussed and proven.

Through experimentation the smallest prediction block-size after cost per pixel is added will never be the best setting to use even though the best prediction is obtained.

The balance of entropy and compression ratio with the cost of using block-sized methods will achieve a better result over the older approach discussed in the thesis. Starting at different block-sizes and comparing the results is used to find the optimal results.

OPTIMAL BLOCK ENCODING AND OPTIMAL ENTROPY FOR LOSSLESS IMAGE COMPRESSION

by
LARRY RAY DENNIS

A thesis submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE
in
ELECTICAL AND COMPUTER ENGINEERING

Portland State University
1997

Acknowledgements

I wish to express my appreciation to my advisor and the chair of my thesis committee, Dr. Fu Li, who provided many suggestions to this research as well as guidance and support. I would also like to thank the other members of my committee, Dr. Rolf Schaumann and Dr. Kwok-Wai Tam.

I wish to express my gratitude to the staff of the Electrical Engineering Department at Portland State University for the help and support throughout the process of getting this degree.

My appreciation is extended to all my co-researchers at the Image Processing Group and Ziqiang Qian for the hours working through my learning curve and help throughout the completion of this thesis.

Finally my special thanks to God and to my family for smoothing the way through the steps of life and this thesis, I love and thank you all.

Contents

List of Figures

List Of Tables

Chapter 1: Introduction

1.0 What is Image Compression

Image compression is the act or science of finding efficient representation for digital images in order to: reduce the memory required for their storage, reduction of bandwidth or time required for their transfer across communication channels, increase the effective data transfer rate when reading from a storage device.

1.1 What is the Standard Compression Method of Today

The standard for image compression is set by the JPEG (Joint Photographic Experts Group) and was formed under the joint auspices of ISO and ITU-T in 1986 to work on an international standard for the compression and decompression of still frame, continues-tone, monochrome, and color images for any device applications.

1.2 Areas where Image Processing is used

Image processing includes, but is not limited to the following: consumer imaging, multimedia products, medical imaging, remote sensing, photojournalism, graphic arts, computer generated images, facsimile transmission, and broadcasting.

1.3 There are two Methods of Image Compression Lossy and Lossless.

1.3.1 Lossy Image Compression (Irreversible)

Lossy image compression is not reversible without loss of overall quality. The human eye can accept a great deal of loss, however, the degree of degradation is dependent on the viewing conditions. The term, visually lossless is used to describe lossy compression schemes that result in no visible degradation [2]. Using this method will achieve a higher compression ratio and is widely used in International standards.

(original image) -> (prediction) -> (quantization) -> (symbol encoding)

=> (encoded compressed data)

Figure 1.3.1 Lossy Compression

1.3.2 Lossless Image Compression (Reversible, Bit-Preserving)

Lossless image compression means that the compression and decompression of an image will be numerically identical on a pixel-by-pixel bases. There are many areas where this method is preferred over Lossy image compression methods such as medical, graphic

design, and all other areas where image quality must be preserved at the cost of reduced compression. The amount of compression will be less than lossy (see 1.2.1). However, the image will maintain all the quality that it had before compression at the receiver site. Also, the degree of compression of an image is dependent on the image itself [2].

(original image) -> (prediction) -> (symbol encoding) =>

(encoded compressed data)

Figure 1.2.2 Lossless Compression

1.3.3 The quantization stage

Quantization of the image is where the two methods differ. The quantizer acts on the predicted data and removes some of the high frequencies from the predicted image. Depending on the amount of high frequencies removed will determine the amount of un-recoverable loss. The more amount of data removed will dictate the amount of compression. The properties of the human eye and the condition under which the image is viewed will determine the threshold. Under normal lighting conditions and applications used, lossy methods are valid.

1.4 Prediction

Prediction is a major corner stone to the image processing methods. Prediction is the same for both lossy and lossless algorithms. The reason why the prediction is performed is so that the image can be transformed using the relationship between the pixels. The better the prediction the greater the compression ratio will become. A poor predictor with a perfect encoder can never achieve the highest compression ratio. The reverse is also true, a perfect predictor with a poor encoder will never achieve the best results.

1.5 Why Huffman Coding was not used in this research

Huffman coding and others schemes are very important to the compression ability. The Huffman code does not effect the optimal block size in anyway. Huffman coding is used within the 2x2 block to decrease the amount of storage of information.

By removing the Huffman Coding Algorithm from this research project, it is hoped to focus on the real question, does the optimal block size save over not using it.

1.6 The research focus

The focus of this research is to prove or disprove the theories expressed in [1] and to validate that the optimal encoding and entropy can make the results better. It is also a goal to prove that pixels even

after prediction have a relationship and are not random. The research will focus on lossless image compression rather than lossy compression, although we will revisit the differences and properties of both from time to time..

1.7 Summary

The standards of image compression are young. The standards are given to create a common communication starting point. Lossy and Lossless image compression are equally important. Lossless will be the focus of this research. There will be other times we shall visit the two directions and discuss their differences. The most important thing to remember is one has a quantizer stage where the other does not. All secondary issues like Huffman coding were removed to better keep the project on track. Of course, any compression program must take these areas into consideration.

Chapter 2: Definitions

2.0 Introduction

This chapter is more than a glossary. This chapter is required for the reader to understand the following chapters to their fullest. How well you understand this chapter and what it means will determine your ability to understand the following chapters and indeed the entire project. The project was completed through the use of ANSI C coding. ANSI C is a programming language standard. The definitions will be described in the mathematical terms whenever possible.

This chapter should be re-addressed whenever you need more understanding on a definition. Each chapter will restate the definitions, however this chapter is meant to deeply define the terminology more than a simple glossary would give.

2.1 Lossless Image Compression

Lossless image compression is the act of compressing an image through the use of an algorithm that loses no information so that when the image is decompressed the original image equals the decompressed image in every way.

2.1.1 Where is lossless compression used.

Where lossless image compression is usable, there are many places such as in the area of medicine and in any area where loss of a small detail could cost lives.

Example I: A Doctor (A) on the west coast and is talking via a phone to another Doctor (B) on the east cost, and Doctor (A) has a picture showing a very little but deadly spot on a lung of a young child. If the picture was sent in the large uncompressed format it could cost the child it's life. Doctor (B) needs the picture the fastest way without any picture quality loss.

Example II: Military satelite data is a very important area where detail is indeed needed. In space you can put the most expensive camera and lose all the important details in sending the lossy compression picture back to earth. Time is also very important. You can't ask the enemy to hold still and smile.

Solution: Lossless image compression can decrease the size of the picture without <u>any</u> image quality loss. This decreased size speeds up the transmit bit rate making it possible to get the data to the receiving site faster.

2.1.2 The cost of lossless image compression.

Lossless image compression does have it's costs. The major cost is compression ratio. In lossless image compression, there is NO

information lost or overlooked. This is a strength and weakness at the same time. There are ways to decrease the weakness and increase the strengths and this is the focus of this thesis.

Strength: No image quality loss with some compression.

Weakness: Larger compressed results than the lossy algorithms.

2.2 Lossy Image compression

Lossy image compressing is widely used. Lossy image compression removes certain data that is not important or can be overlooked without too much discomfort to the image user. There really is no line to how much loss is all right. The line is user subjective. There are widely used methods such as "Discrete Cosine Transformation" This method will not be covered in this paper. The subject of lossy image compression is the direct opposite to Lossless image compression. The costs, strengths, and artifacts will briefly be discussed to show the differences between lossy and Lossless approaches.

2.2.1 Blocking effect

The blocking effect, is caused by removing some of the signal or energy from the image file. This signal is forever lost, and the artifact is like small, well defined, blocked areas where the pixel

values tend to change with a higher amount of difference. Further exploration of this artifact is not required in the area of lossless image compression because it does not exist.

2.2.2 Ringing effect

The ringing artifact, is seen in cases where the image has a well defined edge. A bar graph compressed using a Lossy algorithm will have a great deal of ringing around the edges. Ringing is where the algorithm puts back an amount of signal that is not correct. Further exploration of this artifact is not required in the area of lossless image compression because it does not exist.

2.2.3 Strengths

A major strength of lossy compression is the image can achieve a great compression ratio. This maybe more important than decompressed image quality. It is up to the user to determine the threshold versus image quality.

2.2.4 Weaknesses

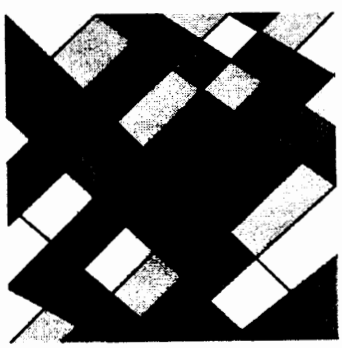
The artifacts are caused by signal loss. The image never can be returned to the original state that was it's starting point. The blocking and ringing artifacts although not shown, and outside the scope of this research paper, are a major concern that should be

considered when selecting between the Lossy and Lossless approaches.

2.3 Original Image

The working definition of an original image used in this research paper is any image given the whole world of images that has not been processed or compressed in anyway. The original image definition is expanded for the purpose of this exploration of lossless image compression researched to be an unprocessed image that is bounded by 512 pixels by 512 pixels.

Example: This is a picture named, Angles512.



Picture 2.3: Original Angles512

2.4 Predicted Image File or Predicted Image.

The created prediction image file has properties that makes compression possible. The predictor image is not a viewable file. Predicted file properties calculates the lowest differential between the target pixel and the neighboring pixels. Each pixel in the original file

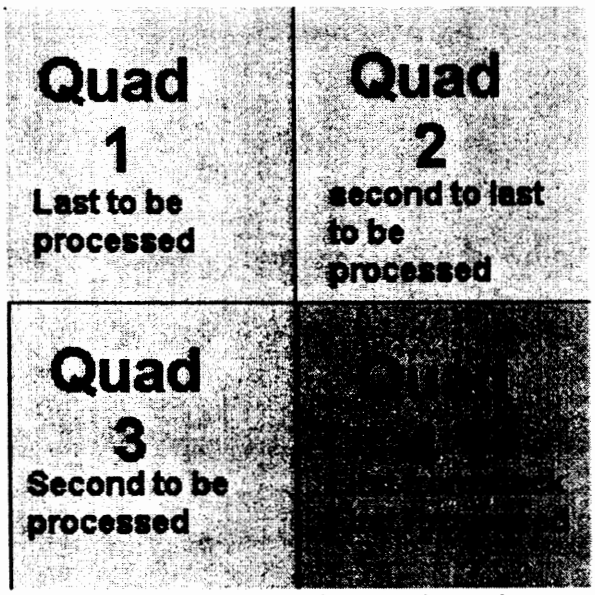
becomes a target and is also used to calculate the lowest potential differences. The predictor algorithm although used in the calculation of entropy and effective entropy was outside the construction of this research project. It uses four different predictor equations to fit the image. The predicted difference can be a negative number. This negative number is a high order sign bit and is made positive by the exclusive-or function. The algorithm for the predictor function can be obtained by reading, *"Lossless Image Compression on Block-based Combined Prediction and Bit-Plane Quad-Tree Huffman Coding", by* Ziqiang Qian, and Dr. Fu Li, Copyright: 1997. The algorithm and source code was researched and was with no success adapted to work outside the source code provided with the paper. To test for the entropy of the predicted result the provided source code was adapted to different block sizes and the results then could be taken for further research for the optimum block size to achieve the optimal entropy. The prediction file is original image dependent. That is to say each unique original image will create a unique prediction file. Furthermore, at different test block sizes the predictor result can differ from each other even with the same original image input.

2.5 Stack

The use of a stack to construct the compressed file is used so that the file does not need to send location or placement of the bits.

The algorithm of the stack makes it possible to remain in step in the encoding and decoding of a compressed image.

The algorithm: First block location in, is the last to be processed. The last block input is the first be processed. Each time a larger than 2x2 area is evaluated to have a bit set, "1" anywhere in the area undergoing test, the test area is quartered and the quarters are saved to the stack. When the area is equal to 2x2 the area is not quartered it is evaluated and the next test block is removed from the stack and evaluated in the same manner. The process continues until the stack is empty. The stack remains active until all area blocks are finished.



Picture 2.5: how the stack works

Example: Imagine a hill of papers. Under the hill is a gold coin. To get to the coin you will not be able to go through the side of the hill you must remove the papers layer by layer until you get to the bottom.

This is how the stack works. Starting at 512x512 and going down each time stacking and removing and re-stacking on evaluation until the whole plane is completed.

The use of the stacking algorithm is to insure the place and make sure the whole image is completed.

2.6 Structure

The definition of a structure in mathematics and in the programming language ANCI C is the same. Structure is a set of related elements. The structure in concert with the stack helps reconstruct the plane from the compressed file. The structure is pushed to the stack.

Example 2.6.1: The actual structure used in the code

```
/*.....                                                    .*/
/*              Structures used in program          .       */
/*          The stack Structure for this program only       */
/*.....                                                    .*/
struct stack_list{                  /* structure to put to stack    */
    int flag_stats;                 /* Make status of flag          */
    long blocksize;                 /* block size to process        */
    long xaxis;                     /* upper-most left corner x     */
    long yaxis;                     /* upper-most left corner y     */
    long position;                  /* position in process order    */
    };                              /* stucture closed              */
struct stack_list stack[STACKSIZE];     /* structure index pointer */
```

This example is NOT meant to confuse you. It is only represented to show that in ANSI C and mathematics structures are

related but not quite the same, although they share the same definition.

Example 2.6.2 Structure in mathematics is {1,2,2,4,5,4,4,4,4,2} This is a structure of real numbers greater than or equal to 1 and less than or equal to 5.

2.7 Sub-Set

Sub-set is a part or the whole of a larger area. In the context of the project the "block" is a sub-set which could be equal to the whole plane or predictor file. Sub-set means a grouping that may be smaller than the whole, but the complete smaller group matches a part of the larger.

Example 2.7.1: given {1,2,3,4,4,4,4,6,7,6,5,4}

Result sub-set = {1,2,3,4,4,4,4}

Example 2.7.2: Given same as Example 2.7.1

Result not a sub-set = {1,2,3,4,9}

2.8 Element

An element is one pixel or one out of the whole group. When the prediction is done it looks at each element and evaluates the best mathematical difference. An element in image processing is exactly

the same as in mathematics. It is possible to be an element without being a sub-set.

Example 2.8.1: given {1,2,3,4,4,4,4,6,7,6,5,4}

Result element = {1}

Example 2.8.1: Given same as 2.8.1

Result not a element = {9}

Answer: 1,2,3,4 are elements, but 9 is not contained in the given, therefore it is not an element.

2.9 Pixel

Pixel is an element of the original file that determines what shade of gray to turn on when displaying the image. There are a total of 262,144 pixels in a 512x512 original image. A pixel is made of 8 bits that can take any value including 0 to 255. After prediction there are still 262,144 pixels, just the value of each element or pixel is decreased.

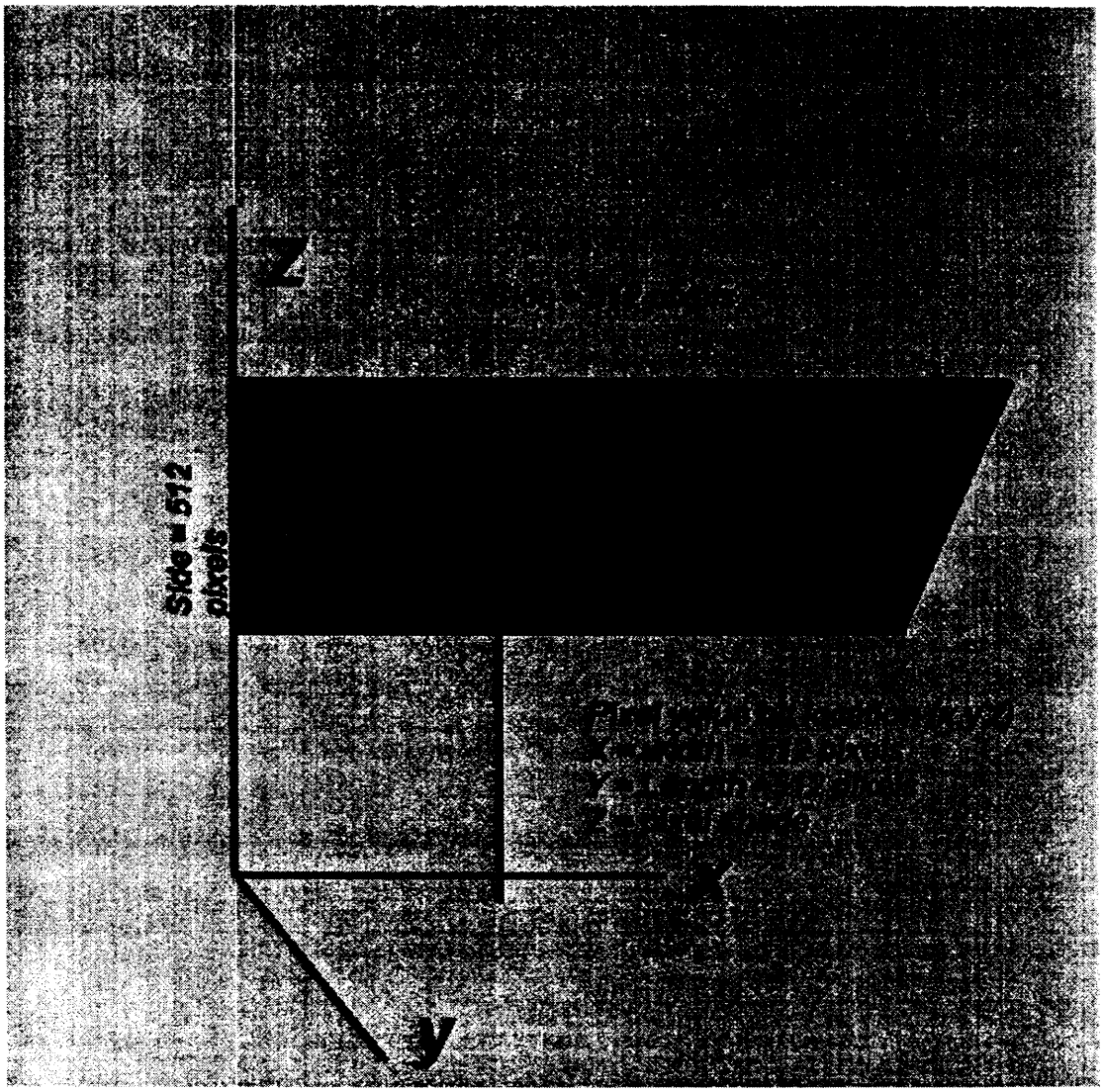
	B0	B1	B2	B3	B4	B5	B6	B7
Example of a pixel =	0	0	0	0	1	0	0	1

= 9

Because bits B4 and B7 are on the gray level of the pixel = 9. It also can be said that B0 through B7 are elements of the pixel. In fact, when the planes are created that is exactly how we will look at the bits.

2.10 bit

Bit is one-eighth of a byte. Each pixel has no less or more than eight bits. In order to create what we will call a bit plane, we must slice apart each pixel into it's smaller element the bit. After this slicing function we can think of the bit as the smallest possible element. It is through evaluations of groupings of bits that we finely get to compression. There is no sub-set in a bit.

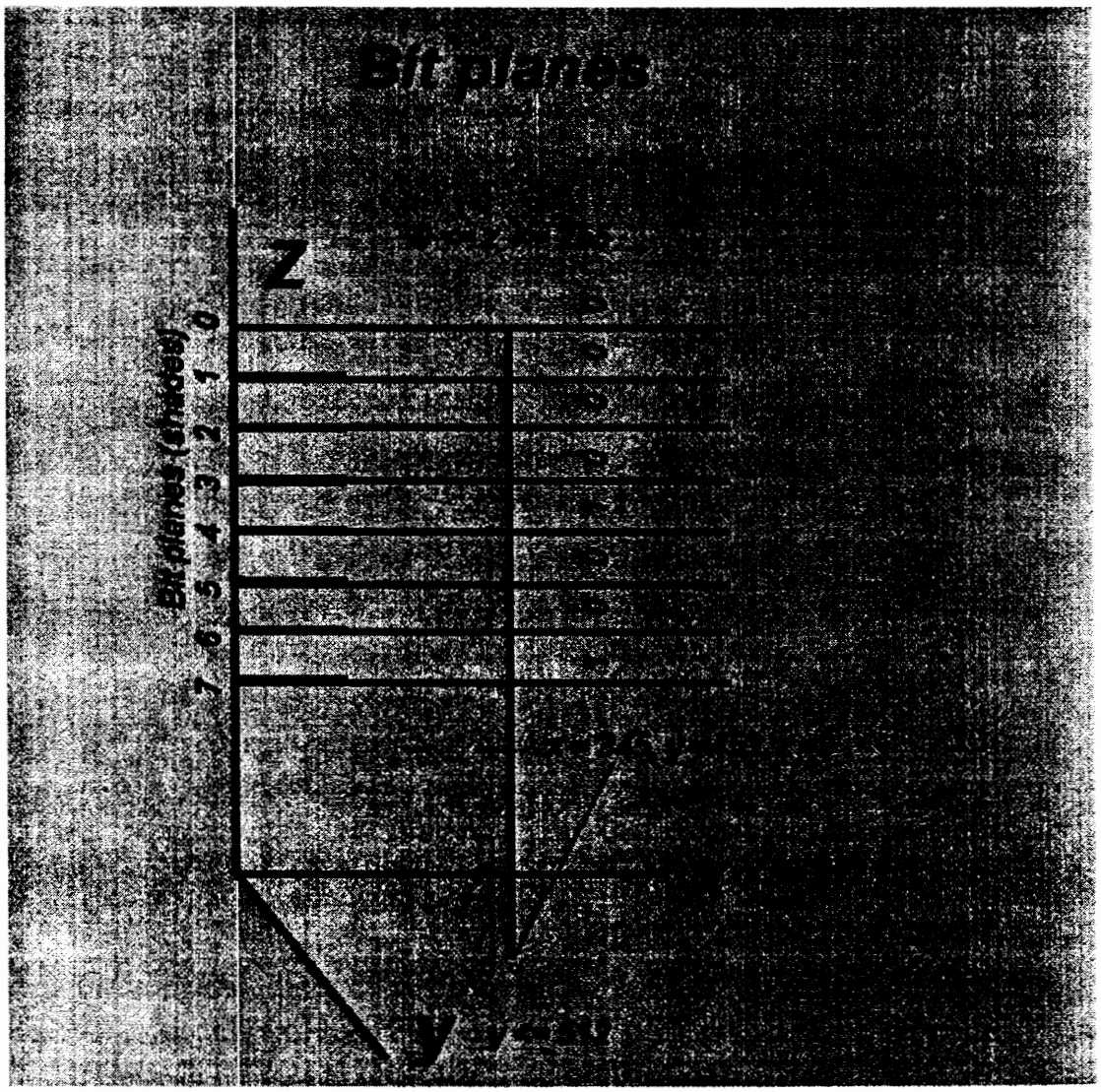


Picture 2.11.1: Graphical picture of plane.

2.11 Plane

A plane is a grouping of the like position bits of each pixel. Plane has the same meaning as does it in mathematics. The planes are bounded by the fact that there are a finite number of pixels and there are only 8 bit locations. Therefore by cutting the predicted pixel element into individual bits and placing only B0 in plane0, and only B1

in plane1, B2 in plane2, B3 in plane3, B4 in plane4, B5 in plane5, B6 in plane6, B7 in plane7. We created 8 bounded bit planes.

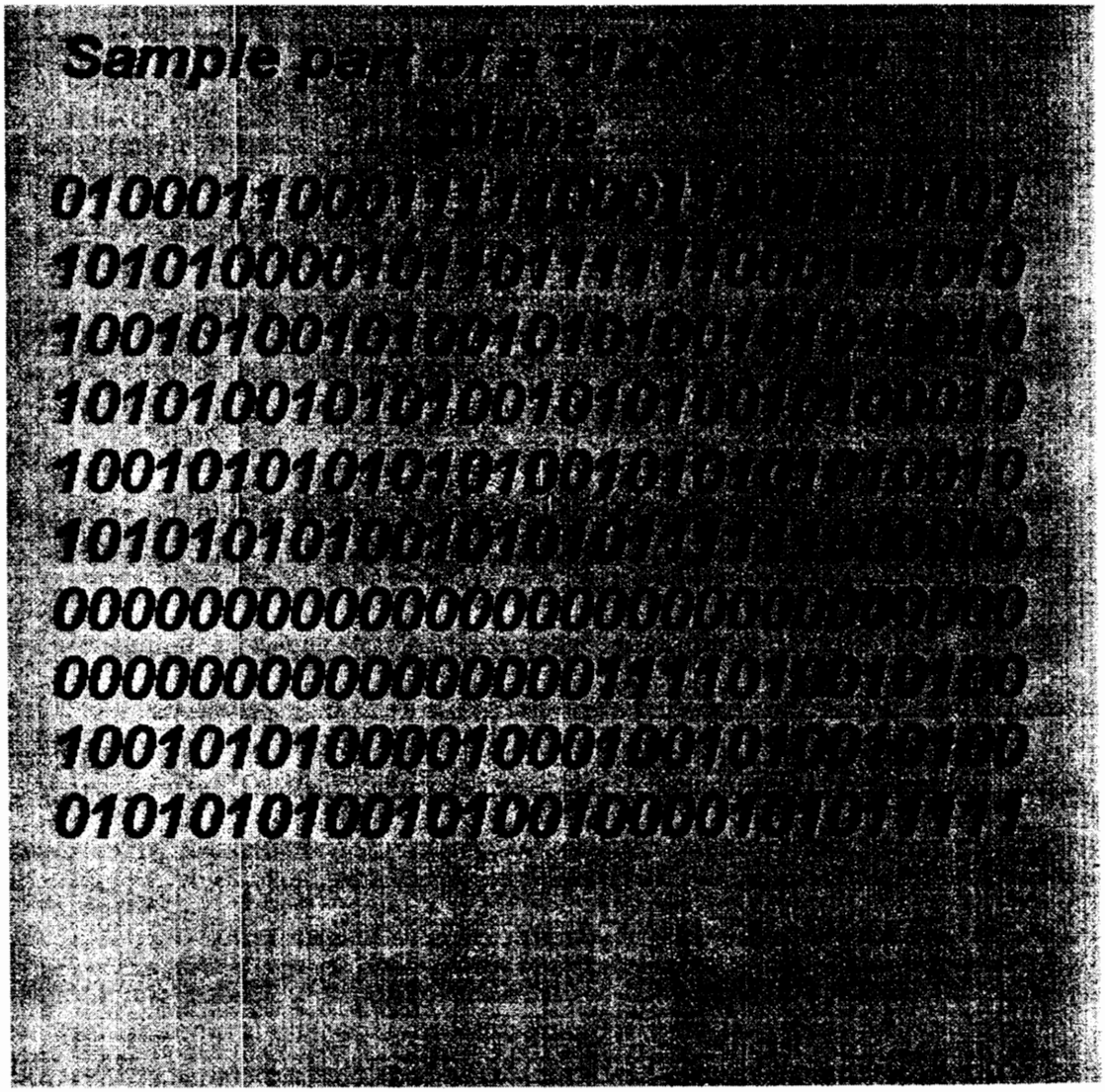


Picture 2.11.1: Picture of all eight bounded bit planes

2.11.1 Bit Planes

The are a total of eight bit planes. The value in each position is either a "1" or a "0" As further discussion all of like bit positions are

cut and put into bounded planes. For a graphical understanding, please see picture 2.11.1. Picture 2.11.1 shows a side view. Picture 2.11.2 shows a sample of a top down view of a plane



Picture 2.11.2: A sample of what a top down view of the plane gives. would look like. Because of the size of the actual 512x512 plane a sample representation is shown. Not all 262,144 pixels can be shown.

2.12 Block

Block is considered a square area. You could call block a sub-set of the plane or predicted file. Block has two independent meanings. For entropy the block stays the same size and does not decrease. For encoding the block size changes each time a stacked area is evaluated. The block can take one any one of these sizes, one at a time: 512x512, 256x256, 128x128, 64x64, 32x32, 16x16, 8x8, 4x4, and 2x2.

2.13 Population

Population is the whole area of 262,144 pixels of the prediction image.

2.14 Probability

Probability is the number of times a pixel has occurred over the whole population. The number is represented as a fraction. All probabilities added up will equal 1. If the total probability is less than one or greater than one, there is an error in counting. In all cases, the total equals 100%.

Probability = Number of occurrences of the pixel value over population

Number of occurrences of the pixel value = 65,345 times

Population = 262,144 pixels

Probability = 0.2493 times/pixels

2.15 Information

Information can best be defined in example. Each day the same thing occurs at 4 p.m. You can be assured that the occurrence will happen again tomorrow, then the probability will be 100% and what you will learn is zero. The higher the probability, the lower the information.

Information = log2 = log10(1/ probability) / log10(2)

Probability = 0.2493 times/pixel

Information = log2 = log10(1/ 0.2493) / log10(2) = 2.0043

2.16 Entropy

Entropy is the number of bits required to represent a gray scale color. In original images all eight are required to cover all 256 possibilities of color gray. After prediction of the original file the required number of bits are decreased.

Entropy = information (see 2.15.1) * Probability (see 2.14.1)
(equation 2.16.1)

2.17 Optimal Entropy

Optimal entropy is the least amount of bit needed to represent the pixel gray scale color. The optimal entropy was found in all cases

of test images to be two (2) bits per pixel. To calculate the optimal block size for entropy, it requires that the whole image be predicted at differing block sizes. As the block size decreases the prediction equations can find a better and better fit for the blocked out areas. It then is reasonable to say the optimal block size for all predicted images will be (2) two. There is a cost that must be carried with this optimal block two bit answer, that in no case makes it a reasonable size to use.

2.18 Cost

The cost of using the block-based entropy is dependent on the block size used in the prediction stage. The cost is two bits per block size population. If the block population is low in the case of the optimal block size, we must add 0.5 bits for each pixel. To reverse the prediction the cost is needed. Without the cost the de-predictor would never be able to choose the correct prediction equation. The image would forever be lost.

2.19 Optimal Block

Optimal block is the shortest path to travel the quad tree that achieves the shortest bit length that represents the plane. Starting higher or lower then this block size will cause the bit length to grow.

Table 2.18.1: Cost Versus Block Population

Block Population	Cost		
4	2/ 4	= 0.5	bits
16	2/ 16	= 0.125	bits
64	2/ 64	= 0.031	bits
256	2/ 256	= 0.0078	bits
1,024	2/ 1,024	= 0.0020	bits
4,096	2/ 4,096	= 0.0005	bits
16,384	2/ 16,384	= 0.0001	bits
65,536	2/ 65,536	= 0.00003	bits
262,144	2/ 262,144	= 0.00001	bits

2.20 Effective Entropy

Effective entropy is the best entropy that can be achieved taking the cost and the individual block-based calculated entropy and using that data in compression.

Effective entropy = entropy(predictor block dependent) +
cost (at same block size)
(equation 2.20.1)

2.21 Summary

This is more than a glossary. A glossary is just a list of words and a brief one or two sentence description.

This chapter is very important because there will be no way to understand the concepts discussed in the following chapters without a starting point of meanings of the terminology used. You may have to refer back to this chapter more than once.

All the chapters shall be provided with a definition section for ease of understanding, however this chapter will be the only place where you may be able to find a graphically in depth definition.

Chapter 3: Random Planes

3.0 Introduction

The random plane theory was designed to explain the existence of relationships between one pixel and it's surrounding pixels. The goal was to achieve a standard table of starting block sizes given the percentage of zero or bits "off". The planes are created assuming there is no relationship after the prediction. If there are no relationships we are able to obtain the table which would remove the need of a header in the decoding of the compressed file.

It can be seen and understood that in an original image there is a clearly defined relationship between the gray scale colors. If there were no relationship, the image when displayed would not be smooth.

Lossy image compression unlike Lossless image compression will only work well with some loss always in the smoother regions of the image. In the case of Lena.jpg (picture 5.5.8 shown with compression results) in the area of the hat feathers after compression and reconstruction there is ringing. There also is a high degree of blocking artifact. For a better understanding of blocking and ringing artifacts (see chapter 2) lossy image compression, it is outside the scope of this research project however, to better understand the

importance of the study of lossless compression, we must have a basic idea of the opposite compression ideas.

What is clearly not known or has not been proven until this chapter, is that after prediction there is a high degree of relationship between the bits and the neighboring bits.

As in all forward transformations we must remember to design a reverse transformation. The reverse transformation of compression is decompression or to reconstruct the file from a smaller file. The reverse transformation must decode the file correctly and the resulting output of the reverse transformation will be equal to the original starting plane input.

3.1 Random Plane Creation

The random planes are meant to represent predicted pixel (see 2.9) data. The bit planes (see 2.11.1) are created completely by putting bits (see 3.1.5) as elements (see 2.8) of the bit planes. In order to insure that the place is not addressed twice, the place must be checked and verified as empty before the bit count is decreased. The bit count is set with the number of bits "1"s required to insure that at the end of the process we get, %55, %60, %65, %70, %75, %80, %85, %90, %95, and %100 zero planes.

Processing of the planes are to achieve the optimal block (see 2.19) and is treated just like a true image plane. If there is no

relationship between elements (see 2.8) of the test random plane, the compressed optimal block size will be higher as the percentage of zeros increases.

The encoding to achieve the optimal block looks within the blocked out region. If there is any, "1"s of information in this area, the encoder must put a control bit in the encoded compressed file so that the decoder can relocate the position of the information. In order to encode for savings, the higher population of "1"s must be in the same regions, and the "0"s in a separate region. The encoder can achieve a higher compression ratio (see table 3.2.1 and table 3.2.2) in planes with a higher percentage of zeros.

55%		60%		65%	
% & block	bits rep	% & block	bits rep	% & block	bits rep
55C1C512	325,425	60C1C512	315,289	65C1C512	302,561
55C2C256	325,424	60C2C256	315,288	65C2C256	302,560
55C3C128	325,420	60C3C128	315,284	65C3C128	302,556
55C4C64	325,404	60C4C64	315,268	65C4C64	302,540
55C5C32	325,340	60C5C32	315,204	65C5C32	302,476
55C6C16	325,084	60C6C16	314,948	65C6C16	302,220
55C7C8	324,060	60C7C8	313,924	65C7C8	301,196
55C8C4	319,964	60C8C4	309,828	65C8C4	297,100
55C9C2	303,580	60C9C2	293,468	65C9C2	280,784

* results in above "packed". No compression at any block size.

70%		75%		80%	
% & block	bits rep	% & block	bits rep	% & block	bits rep
70C1C512	286,157	75C1C512	265,905	80C1C512	239,405
70C2C256	286,156	75C2C256	265,904	80C2C256	239,404
70C3C128	286,152	75C3C128	265,900	80C3C128	239,400
70C4C64	286,136	75C4C64	265,884	80C4C64	239,384
70C5C32	286,072	75C5C32	265,820	80C5C32	239,320
70C6C16	285,816	75C6C16	265,564	80C6C16	239,064
70C7C8	284,792	75C7C8	264,540	80C7C8	238,040
70C8C4	280,696	75C8C4	260,444	80C8C4	233,944
70C9C2	264,576	75C9C2	**244,832**	80C9C2	**219,600**
packed		compression started			

Table 3.2.1 Random planes compressed to find the Optimal Block Size.
(part 1 of 2)

85%		90%		95%	
% & block	bits rep	% & block	bits rep	% & block	bits rep
85C1C512	207,581	90C1C512	165,169	95C1C512	105,993
85C2C256	207,580	90C2C256	165,168	95C2C256	105,992
85C3C128	207,576	90C3C128	165,164	95C3C128	105,988
85C4C64	207,560	90C4C64	165,148	95C4C64	105,972
85C5C32	207,496	90C5C32	165,084	95C5C32	105,908
85C6C16	207,240	90C6C16	164,828	95C6C16	105,652
85C7C8	206,216	90C7C8	163,804	95C7C8	104,628
85C8C4	202,120	90C8C4	159,724	95C8C4	**101,128**
85C9C2	**190,648**	90C9C2	**155,400**	95C9C2	113,724
Compression at lowest block best.				First location of bound	

100% zero plane	
% & block	bits rep
1001C512	**1**
1002C256	4
1003C128	16
1004C64	64
1005C32	256
1006C16	1,024
1007C8	4,096
1008C4	16,384
1009C2	65,536

Table 3.2.2 Random planes compressed to find the Optimal Block Size.
(part 2 of 2)

As the data in Tables 3.2.1 and 3.2.2 clearly shows the relationship between optimal block size and the location of the bits is very important. This proves that the bit relationship after prediction remains. If there were no relationship then the optimal block size would be expected to be higher in planes 75% to 95% of zero.

What should have been seen in 75% at 95% planes is the optimal block size equal to 64x64 for a high to middle range plane.

This selected size is the size that it costs the least to save, if 64x64 is optimal block size. Cost means the smallest bit stream length is created. With actual image planes the optimal block should range anywhere from 256 to 32 in the highest order planes. A block size 256 will achieve better compression results than a block equal to 32. In an actual predicted image plane. However, block size 32 is much better than 2 or 4 as the Tables 3.2.1 and Table 3.2.2 shows, which are not true image planes.

In the case of the %100 bits zero plane, the program and algorithm would best select 512 as the optimal block size or there would be an obvious error in either the theory or program.

3.2 Summary

Clearly the data states the fact that the positions of the bits in any plane must be related. As data from actual pictures are shown compressed in later chapters it will once again be shown that to get any compression the bits are in population areas with large areas of zeros and clearly the data after prediction remains related and is not random..

Chapter 4: Prediction

4.0 Introduction

This chapter will cover prediction, reverse prediction, and why the act of predicting an original file is a very important corner stone in the compression.

An original file is represented in gray scale color and the pixel can range anywhere between 0 to 255 in shade. To represent the numbers between 0 and 255 in binary, the number will require 8 bits (2^8 = 256) to cover all the possible shades that the gray scale pixel can take on. In a picture, the image should appear smooth. This smoothness then means that the pixel and the surrounding pixels values should not differ by much. The act of predicting an original image tries to exploit the smoothness relationship that the image has to decrease the value of the number so that the least number of bits are turned on. The properties that the predictor gives us shall be covered later in this chapter.

4.1 What is prediction.

What is prediction? Prediction is the act of exploitation of the relationship of the pixels and the pixels that are directly around it. The relationship is much like a family. A prediction, is the best

representation of the pixel that decreases the number of bits that are required to be turned on. Why we want to decrease the number of bits on will be covered in the section 4.2: The act of prediction does not lose any information. The information is simply translated into another form. There is a reverse transformation required whenever a forward transformation is needed.

4.1.1 What is a bit.

A bit is one-eighth of a byte. To fully represent all the possible colors of gray the whole byte is used in the case of the original image. When the bit is said to be in the one setting this is high or considered, "1". When in the off setting the bit is low or considered, "0".

Example 4.1.1.1: This is the number 255 in bit representation

1 1 1 1 1 1 1 1 binary = 255 decimal

Example 4.1.1.2: This is the number 0 in bit representation

0 0 0 0 0 0 0 0 binary = 0 decimal

Example 4.1.1.3: This is the number 135 in bit representation

1 0 0 0 0 0 1 1 1 binary = 135 decimal

These are only three of the possible numbers between 0 and 255 making the whole range of values that the pixel in binary can take on.

4.2 What the act of prediction does to the original file.

The act of prediction of the original file decrease the number of bits that are in the "ON" state. The original file has pixels that have a relationship, but the original file does not exploit the relationship to it's fullest degree. The relationship between two pixels and the prediction that can be made from them can be as simple as taking the difference between the pixels. Remember that in order for an image to be smooth the pixels may differ by a small amount. The prediction value can differ in the negative direction also. The prediction file must carry this negative sign so that the reverse predictor transformation can recover the correct value. The way that the predictor carries the negative sign will be discussed later in this chapter. This section is only concerned with making it clear that the predictor does exploit the relationship between the pixels in the surrounding area. There is not only the relationship of one pixel to the following pixel, but there is the relationship to the pixel directly below, and also the relationship to the pixel below and to the right. The best prediction will represent this relationship by the lowest number. The properties that the predictor file has is very important. The properties of the predictor file makes it possible to compress the image.

4.3 What properties does the predictor file have.

The properties are very important. The predictor file represents a file with lower valued numbers. Lower valued numbers in binary have zeros in the Most Significant Bit (MSB) positions. By putting fewer bits of "1" in the Most Significant Bit (MSB) positions it will make compression of the file possible. How the compression is done will be discussed in later chapters. In order to understand the compression and how it works depends on your understanding of how the predictor works and the way the properties of the predictor are exploited. The goal of the predictor is to represent the pixel by the lowest value possible. The predictor file in the MSB position over the whole image, hopefully for the most part will be zero. The following bit positions will have more bits in the "ON" state. This is why it is said that the action of predicting a file puts more information in the Least Significant Bit (LSB) positions. This is also why compression decreases as we move down from MSB to the LSB bit positions. It is important to remember that the prediction is reversible and therefore no loss of information has occurred. The information after prediction has only been transformed.

4.4 What is a predictor block.

A predictor block can be the whole predicted file or any N x N block size of the following set of numbers 512, 256, 128, 64, 32, 8, 4,

and 2. The reason it is important to try different block sizes is to minimize the entropy and cost. Entropy and the importance of the minimum and optimum results will be saved for a following chapter. If a prediction of the pixel was allowed to change on a pixel by pixel bases the cost discussed in the next section of this chapter would be very high. The block-wise prediction method will take the best fitting prediction for the block and predict the whole block area with this prediction equation. This one chosen equation will not be the best fit on the individual pixel bases but over the whole block will represent the best equation to get the lowest values overall. The block size 2x2 without the cost will achieve the best prediction because the predictor is allowed to change 65,536 times over the original file. It is the cost that over powers the savings factor of this small well fitting block size.

4.5 What is the cost of the block prediction method.

The cost is dependent on the block size used. The smaller the block size the larger the cost. Because we have selected to have four predictors the cost is two extra bits per block. We must carry this cost to be able to reverse the prediction process. The reverse predictor is covered later in this chapter. The costing function based on block is as follows:

Block	Cost
512	2 / 512 x 512
256	2 / 256 x 256
128	2 / 128 x 128
64	2 / 64 x 64
32	2 / 32 x 32
16	2 / 16 x 16
8	2 / 8 x 8
4	2 / 4 x 4
2	2 / 2 x 2

Table 4.6.0.1 Block size versus Cost

As you can see the cost is at its lowest at block size equal to 512 but the prediction rarely is the best at this block size. For the block size to be the best at 512 the whole image would need only one predictor equation to be the best fit and achieve the lowest value between each of the pixels.

A balance between the cost and block must be found and is image dependent. However, using the sample images as a guide the balance tends to be around block size 8 or 16 but this is only for a small sample size given the whole world of 512 x 512 images.

4.6 What is the reverse predictor.

Reverse prediction is taking the predicted file and based on the prediction equation selected, then reversing the numbers element by element or pixel by pixel to the original pixel value. The cost

discussed in 4.5 is used to choose the correct equation and the original pixel value is returned without loss.

4.7 Summary

The predictor algorithm discussed in reference [1] is the best method found for decreasing the numbers of bits needing to be handled in the Most Significant Bit (MSB) planes. True there is a cost, however, the savings is very good. Although the predictor was unable to be moved to the IBM machine for direct inline processing, it is probably a simple coding violation of some thing in the algorithm that makes it UNIX dependent. The algorithm is sound.

Chapter 5: Encoding of the image to find Optimal Block Size on the Planer level

5.0 Introduction

Encoding an image can be done with two major directions. The first direction is Lossy and this method has costs that were discussed in Chapter two. The second direction is Loss-less. Loss-less image compression has not been discussed or researched in the method that we shall talk about here. There has been some work done and talked about in reference [1], "Lossless Image Compression on Block-based Combined Prediction and Bit-Plane Quad-Tree Huffman Coding" by: Ziqiang Qian, and Dr. Fu Li, but the data needed supported. In this chapter we will talk about the encoding method constructed in reference [1] and how the Optimal Block for encoding can make the overall result of compression better than the current method.

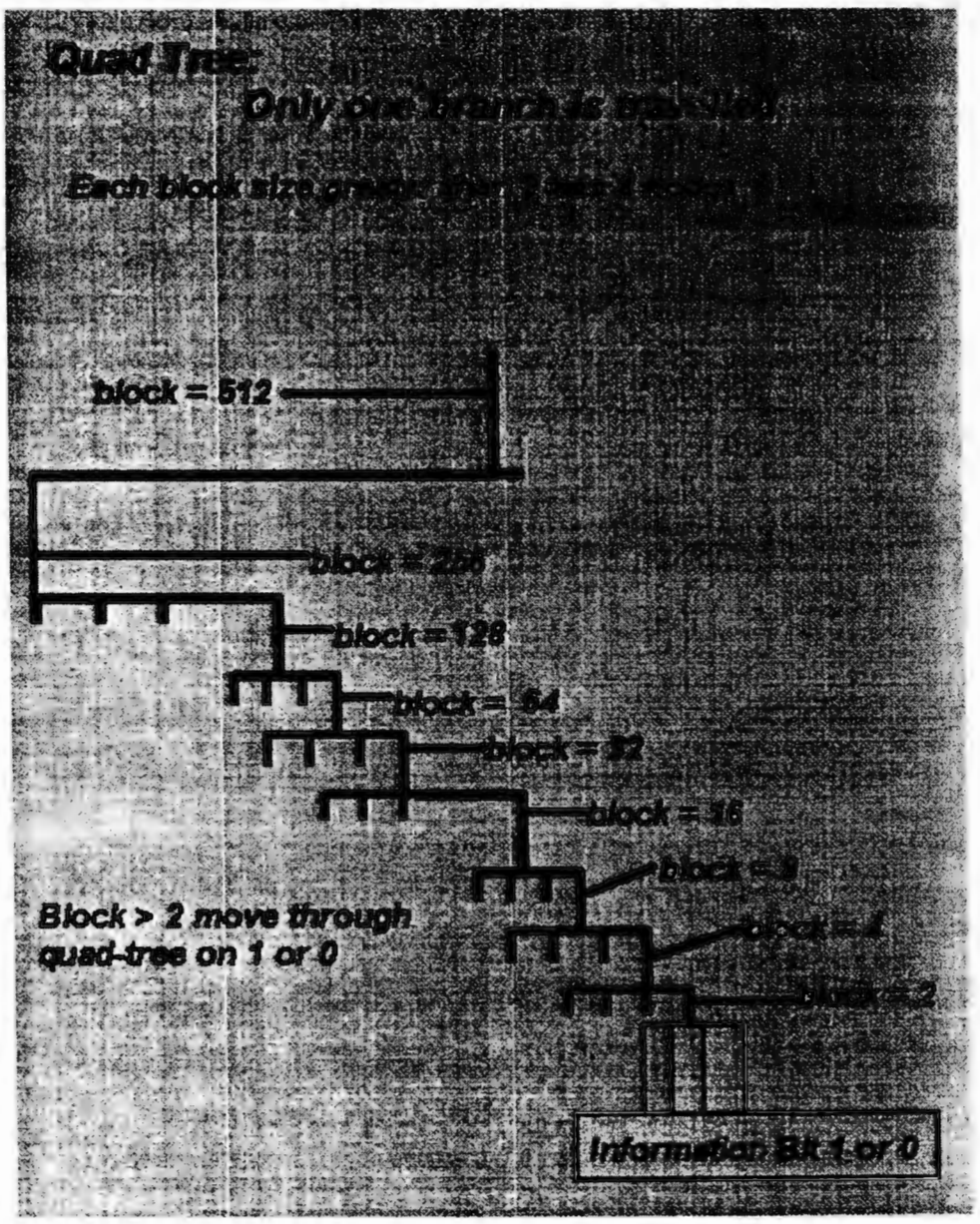
5.1 The Common Points to Reference

For the remainder of this chapter the following points of reference are given for ease of understanding. For a more detailed and pictured description refer to Chapter 2.

- At this point, the original image (see 2.3) has already been predicted.

- The predicted image file (see 2.4) has been evaluated on a pixel (see 2.9) by pixel bases in regards to the individual bits (see 2.10) .
- These individual bits (see 2.10) are put into planes (see 2.11).
- These planes (see 2.11) are renamed and used in both the optimal block and non optimal block methods are called bit planes (2.11.1).

Each compression algorithm is working on the level of bit planes. This is the common points plus planer overshoot control and both algorithms use a quad tree design stack algorithm to achieve the desired image compression. Optimal block compression does only apply to the image individual planer data. The overall savings of both approaches is the sum of each of the eight planes savings. Also both approaches have the same way of taking care of encoding expanding. To handle this, both algorithms stop encoding and take the ASCII value for every eight bits and put the result out the compressed file. This method is called expanding control or packing up the plane.



Picture 5.3.1 A picture of travel of only one branch.

5.2 Definition of Quad-Tree design

The Quad-Tree design uses the property of the stack (see 5.1.3) to move through the plane. It is a tree structure and each branch has four sub-branches or fingers. The quad-tree design relies

on the stack to remember the placement or area undergoing evaluation. If the block size is greater than 2x2 and data is in the area then the encoder saves a "1" to the compressed data file. If the area, called block, is all zero a "0" is sent to the compressed file. Compression occurs for large areas of all zeros because treeing is not required into this area. Remember the predicted image file property tends to put the larger population of "1"s into the Least Significant Bit (LSB) planes and the greater number of zeros in the Most Significant Bit (MSB) planes.

Algorithm:

- Tree if test area block:
    1) has information in it.
    2) if block is greater than 2x2.
    3) record the condition by outputting a bit, "1".
    4) Quad the block and put to stack
    5) Pull block test area from stack
- If block has no information:
    6) test block contains no information record a bit, "0".
    7) test next block from the stack.
- If test block = 2 and information is present:
    8) record control bit, "1".

9) record data that block bits information.

10) remove next test block from stack.

- Continue until stack is empty

5.3 The Quad Tree Approach found in Reference [1]

This approach is truly a novel design. The method used in the reference [1] is very good and a novel approach to image loss-less compression. The design starts at the largest block size and decreases recording bits for each level and then at the end of the block traversal, at block equal to 2x2, recording the data just as in the description in 5.3 requires. This approach may cause a plane to be packed up. The overhead of the tree may push the encoder past the limit as some of the planes near (LSB) bit count shows.

5.4 Optimal Block Approach to Encoding

Optimal block encoding is the finding of the best block size to start the tree traversal. This starting point can be and often is lower than the starting point of the approach found in 5.4. Tables of data will be provided at the end of this Chapter. Simply by beginning at different block sizes the optimal block size can make a plane compress with better results. Table 5.5.1 is partial data results. The

entire Tables for airplane and the other test images will be in Appendix A and will be referenced such as Table A.1.1 The first two letters of the name AI0C1512.002 denote the first two letters of the test file name. The third character denotes the plane in this case, it is plane 0 (the MSB plane). The fourth character denotes the processing placement. The fifth character denotes that it is a compressed file. Characters six, seven and eight denote the starting block size. The following three numbers are the entropy that was used. Entropy and how it was calculated will be covered in chapter 6.

The new improved algorithm:

- Test if block is equal to start or less than start size:
    1) if not quad the block
    2) stack the quads
    3) pop quad from stack
    4) repeat 1 through 4 until block equals start
- Tree if test area block:
    5) has information in it.
    6) if block is greater than 2x2.
    7) record the condition by outputting a bit, "1".
    8) Quad the block and put to stack
    9) Pull block test area from stack
- If block has no information:

10) test block contains no information record a bit, "0".

11) test next block from the stack.

- If test block = 2 and information is present:

12) record control bit, "1".

13) record data that block bits information.

14) remove next test block from stack.

15) Return to test if block is equal to start or less than start size

- Continue until stack is empty

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 002

AI01C512.002	577	AI41C512.002	172,701
AI02C256.002	**576**	AI42C256.002	172,700
AI03C128.002	576	AI43C128.002	172,696
AI04C064.002	596	AI44C064.002	172,680
AI05C032.002	748	AI45C032.002	172,616
AI06C016.002	1 ,464	AI46C016.002	172,368
AI07C008.002	4,460	AI47C008.002	171,552
AI08C004.002	16,640	AI48C004.002	**169,804**
AI09C002.002	65,672	AI49C002.002	174,304

Table 5.4.1 Part of the results for Airplane at Entropy = 2

The results shown in Table 5.4.1 illustrate that by starting at block size 256 the encoded data is smaller than starting at 512 as the approach 5.4 would have done. Starting at block size 128 has the same resulting bit stream length as block size 256, however

AI01C256.002 does not equal AI01C128.002 in a lot of cases of the test images this is true, however, the reader should not come to the conclusion that there is something wrong. The explanation of this is, the cost of going down happens to equal the savings of the next block size up. In fact, the true optimal block is not 128 it is 256.

Table 5.4.1 also shows plane 4 of airplane example. Now looking at the numbers 172,701 and 169,804 (the optimal encoding block size) there is a clear savings of 2,897 bits. Starting at the optimal block size will always 1) equal the results or 2) better the results of approach in 5.3. There is no time that the results is worse than 5.3.

Equation for estimation of savings in bits:

Plane 0 encode + Plane 1 encode + Plane 2 encode + Plane 3 encode +
Plane 4 encode + Plane 5 encode + Plane 6 encode + Plane 7 encode

(equation 5.4.1)

Equation for finding the difference:

(Equation 5.5.1 at block = 512) - (Equation 5.4.1 at Optimal Block) = bits

(equation 5.5.2)

Equation for converting from bits to bytes: If the number is a fraction you must round down in all cases.

Number in bits / 8 = bytes

(equation 5.4.3)

Example 5.4:

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 002

AI01C512.002	577	AI41C512.002	172,701
AI02C256.002	**576**	AI42C256.002	172,700
AI03C128.002	576	AI43C128.002	172,696
AI04C064.002	596	AI44C064.002	172,680
AI05C032.002	748	AI45C032.002	172,616
AI06C016.002	1 ,464	AI46C016.002	172,368
AI07C008.002	4,460	AI47C008.002	171,552
AI08C004.002	16,640	AI48C004.002	**169,804**
AI09C002.002	65,672	AI49C002.002	174,304
AI11C512.002	10,961	AI51C512.002	258,769
AI12C256.002	10,960	AI52C256.002	258,768
AI13C128.002	10,956	AI53C128.002	258,764
AI14C064.002	**10,948**	AI54C064.002	258,748
AI15C032.002	10,984	AI55C032.002	258,684
AI16C016.002	11,324	AI56C016.002	258,428
AI17C008.002	13,396	AI57C008.002	257,404
AI18C004.002	23,700	AI58C004.002	253,504
AI19C002.002	69,720	AI59C002.002	**241,632**
AI21C512.002	40,469	AI61C512.002	305,933
AI22C256.002	40,468	AI62C256.002	305,932
AI23C128.002	40,464	AI63C128.002	305,928
AI24C064.002	**40,448**	AI64C064.002	305,912
AI25C032.002	40,456	AI65C032.002	305,848
AI26C016.002	40,644	AI66C016.002	305,592
AI27C008.002	41,924	AI67C008.002	304,568
AI28C004.002	49,216	AI68C004.002	300,472
AI29C002.002	86,724	AI69C002.002	**284,292**
AI31C512.002	87,589	AI71C512.002	309,009
AI32C256.002	87,588	AI72C256.002	309,008
AI33C128.002	87,584	AI73C128.002	309,004
AI34C064.002	87,568	AI74C064.002	308,988
AI35C032.002	87,520	AI75C032.002	308,924
AI36C016.002	**87,440**	AI76C016.002	308,668
AI37C008.002	87,808	AI77C008.002	307,644
AI38C004.002	91,844	AI78C004.002	303,548
AI39C002.002	117,360	AI79C002.002	**287,208**

Table 5.4.2 Entire 8 planes for Airplane at entropy = 2

To better understand the significant savings we will add up the costs of compressing each plane and take the difference to illustrate the importance of the use of the optimal encoding block. Remember that if the results are greater than 262,144 it will equal 262,144 because of packing up the plane.

Optimal block results for Airplane (picture 5.5.1) at entropy 002 = 576 + 10,948 + 40,448 + 87,440 + 169,804 + 241,632 + 262,144 + 262,144 = 1,075,136 bits

(equation 5.4.1)

The 5.4 approach = 577 + 10,961 + 40,469 + 87,589 + 172,701 + 258,769 + 262,144 + 262,144 = 1,095,381 bits

(equation 5.4.1)

difference of Approach 5.4 - OB = 1,095,381 bits - 1,075,136 bits = 20,245 bits

(equation 5.4.2)

20,245 / 8 = 2,530 bytes saved

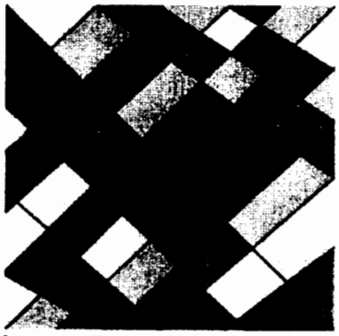
(equation 5.4.3)

5.5 The results from the test images in table form

The results in a compact format is now listed. The complete full data for each file at different entropy setting will be provided in Appendix A.

Picture 5.5.1 Airplane.bin

Table 5.5.1 Airplane
Optimum Encoding block size
Plane 0: block = 256
Plane 1: block = 064
Plane 2: block = 064
Plane 3: block = 016
Plane 4: block = 004
Plane 5: block = 004
Plane 6: block = 002
Plane 7: block = 002



Picture 5.5.2 Angle512.bin

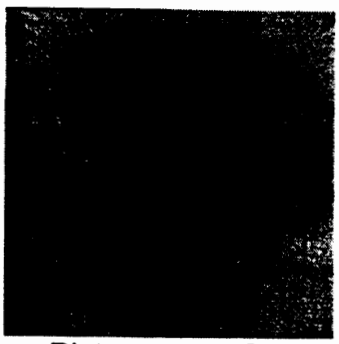
Table 5.5.2 Angles512
Optimum Encoding block size
Plane 0: block = 32
Plane 1: block = 16
Plane 2: block = 16
Plane 3: block = 16
Plane 4: block = 16
Plane 5: block = 16
Plane 6: block = 16
Plane 7: block = 16

Picture 5.5.3 Baboon

Table 5.5.3 Baboon
Optimum Encoding block size
Plane 0: block = 16
Plane 1: block = 08
Plane 2: block = 02
Plane 3: block = 02
Plane 4: block = 02
Plane 5: block = 02
Plane 6: block = 02
Plane 7: block = 02

Picture 5.5.4 Bill

Table 5.5.4 Bill
Optimum Encoding block size
Plane 0: block = 256
Plane 1: block = 128
Plane 2: block = 064
Plane 3: block = 016
Plane 4: block = 008
Plane 5: block = 002
Plane 6: block = 002
Plane 7: block = 002



Picture 5.5.5 Cat

Table 5.5.5 Cat
Optimum Encoding block size
Plane 0: block = 256
Plane 1: block = 032
Plane 2: block = 016
Plane 3: block = 004
Plane 4: block = 002
Plane 5: block = 002
Plane 6: block = 002
Plane 7: block = 002

Picture 5.5.6 Cryistal

Table 5.5.6 Cryistal
Optimum Encoding block size
Plane 0: block = 064
Plane 1: block = 032
Plane 2: block = 016
Plane 3: block = 008
Plane 4: block = 004
Plane 5: block = 002
Plane 6: block = 002
Plane 7: block = 002

Picture 5.5.7 Larry512

Table 5.5.7 Larry512
Optimum Encoding block size
Plane 0: block = 128 c
Plane 1: block = 064 c
Plane 2: block = 032 c
Plane 3: block = 008 c
Plane 4: block = 004 c
Plane 5: block = 002 c
Plane 6: block = 002 n
Plane 7: block = 002 n

Picture 5.5.8 LenaY

Table 5.5.8 LenaY
Optimum Encoding block size
Plane 0: block = 256
Plane 1: block = 064
Plane 2: block = 032
Plane 3: block = 016
Plane 4: block = 002
Plane 5: block = 002
Plane 6: block = 002
Plane 7: block = 002

Picture 5.5.9 Peppers Stand-in

Table 5.5.9 Peppers
Optimum Encoding block size
Plane 0: block = 064 c
Plane 1: block = 032 c
Plane 2: block = 008 c
Plane 3: block = 002 c
Plane 4: block = 002 n
Plane 5: block = 002 n
Plane 6: block = 002 n
Plane 7: block = 002 n

5.6 Summary

Changing to the use of the optimal block size will in each of the test files increase the savings or decrease the output file size over the older approach followed in 5.4. The approach 5.4 is not wrong but, it can be made better. As it will be seen in chapter 6 the entropy will make the compression even better but will not change the optimal block size.

This optimal block size enhances the chance to make the least significant bit planes be compressible. The goal was to better the approach and therefore better the compression abilities and under optimal starting block size the goal was realized.

Chapter 6: Optimal Entropy

6.0 Introduction

Entropy is the number of bits required to represent a pixel gray scale color. The entropy in an original image for the case in this investigation is eight bits. Entropy is a valid area to work in, to increase the compressibility of the image. The importance of entropy is the whole reason why the prediction of the original file is done. Prediction of the file will decrease the entropy. The goal is to decrease the entropy to it's lowest limit.

The lowest limit is called, optimal entropy. The optimal entropy is not directly usable because there is a cost. Cost is added to the optimal entropy to make the usable entropy called, Effective Entropy. Effective entropy will in all cases ofthe test images be higher than the Optimal Entropy.

6.1 What Occurs when the results are very close.

When the values are very close the effective block size may move up in size one step or down one step. Remember that to get the number we used many different equations and any rounding at any stage could move the data around the calculated data points.

6.2 Data results for the test images

The effective and optimal data for each image will only be shown here. To see the results of entropy on compression please consult Appendix A.

Table 6.2.1 Effective Entropy for the test files

Airplane, at block = 064	Entropy without cost = 4.174756, with cost = 4.175244
Angle512, at block = 512	Entropy without cost = 3.311880, with cost = 3.311887
Baboon, at block = 064	Entropy without cost = 6.274953, with cost = 6.275442
Bill, at block = 008	Entropy without cost = 3.766484, with cost = 3.797734
Catt, at block = 016	Entropy without cost = 4.914380, with cost = 4.922193
Cryistal, at block = 008	Entropy without cost = 4.195449, with cost = 4.226699
Larry512, at block = 008	Entropy without cost = 3.891644, with cost = 3.922894
LenaY, at block = 016	Entropy without cost = 4.506505, with cost = 4.514317
Peppers, at block = 016	Entropy without cost = 4.896165, with cost = 4.903978

6.3 Summary

The selection of entropy in reference [1] was a very good setting. However shifting the entropy block size in the predictor would achieve a better compression ratio on all the planes. The entropy does NOT shift the optimal block size for encoding (see chapter 5) it gives better compressibility at these settings.

This chapter supports the research done in reference [1]. The effective entropy is used in the place of optimal so that the predictor transform will be reversible.

Chapter 7: Conclusion

This research project proved that the use of the optimal block size and optimal entropy after the cost was added, did save over the older algorithm in reference [1]. Even though the pixels are predicted there is still a strong relationship between the ones in the bit-planes. Future work in the predictor may result in a better compression ratio.

Appendix A is only provided to support the findings in this research project. At no time will you have to use Appendix A except to check the findings claimed in chapters one through six. All needed tables for the purpose of the examples are provided within the chapter.

To complete this research project, a program in C was constructed. The amount of compiled lines were between 19 and 20 thousand lines. Due to the requirements set forth in the format guidelines and printed page count, it is not provided here.

All of the algorithms are provided within the chapters or the references. It is my wish that the chapters and research help to further the technological knowledge and understanding of optimal block encoding and entropy can provide.

APPENDIX A

Tables of Compressed Data File Results

pp. 59 -139

Tables of Entropy versus Effective Entropy

pp. 140 -142

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 002

AI01C512.002	577	AI41C512.002	172,701
AI02C256.002	**576**	AI42C256.002	172,700
AI03C128.002	**576**	AI43C128.002	172,696
AI04C064.002	596	AI44C064.002	172,680
AI05C032.002	748	AI45C032.002	172,616
AI06C016.002	1 ,464	AI46C016.002	172,368
AI07C008.002	4,460	AI47C008.002	171,552
AI08C004.002	16,640	AI48C004.002	**169,804**
AI09C002.002	65,672	AI49C002.002	174,304
AI11C512.002	10,961	AI51C512.002	258,769
AI12C256.002	10,960	AI52C256.002	258,768
AI13C128.002	10,956	AI53C128.002	258,764
AI14C064.002	**10,948**	AI54C064.002	258,748
AI15C032.002	10,984	AI55C032.002	258,684
AI16C016.002	11,324	AI56C016.002	258,428
AI17C008.002	13,396	AI57C008.002	257,404
AI18C004.002	23,700	AI58C004.002	253,504
AI19C002.002	69,720	AI59C002.002	**241,632**
AI21C512.002	40,469	AI61C512.002	305,933
AI22C256.002	40,468	AI62C256.002	305,932
AI23C128.002	40,464	AI63C128.002	305,928
AI24C064.002	**40,448**	AI64C064.002	305,912
AI25C032.002	40,456	AI65C032.002	305,848
AI26C016.002	40,644	AI66C016.002	305,592
AI27C008.002	41,924	AI67C008.002	304,568
AI28C004.002	49,216	AI68C004.002	300,472
AI29C002.002	86,724	AI69C002.002	**284,292**
AI31C512.002	87,589	AI71C512.002	309,009
AI32C256.002	87,588	AI72C256.002	309,008
AI33C128.002	87,584	AI73C128.002	309,004
AI34C064.002	87,568	AI74C064.002	308,988
AI35C032.002	87,520	AI75C032.002	308,924
AI36C016.002	**87,440**	AI76C016.002	308,668
AI37C008.002	87,808	AI77C008.002	307,644
AI38C004.002	91,844	AI78C004.002	303,548
AI39C002.002	117,360	AI79C002.002	**287,208**

Table A.1.1 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 004

AI01C512.004	709	AI41C512.004	181,545
AI02C256.004	708	AI42C256.004	181,544
AI03C128.004	704	AI43C128.004	181,540
AI04C064.004	720	AI44C064.004	181,524
AI05C032.004	860	AI45C032.004	181,460
AI06C016.004	1,560	AI46C016.004	181,216
AI07C008.004	4,540	AI47C008.004	180,408
AI08C004.004	16,704	AI48C004.004	178,608
AI09C002.004	65,708	AI49C002.004	181,756
AI11C512.004	12,041	AI51C512.004	271,797
AI12C256.004	12,040	AI52C256.004	271,796
AI13C128.004	12,036	AI53C128.004	271,792
AI14C064.004	12,028	AI54C064.004	271,776
AI15C032.004	12,068	AI55C032.004	271,712
AI16C016.004	12,404	AI56C016.004	271,456
AI17C008.004	14,428	AI57C008.004	270,432
AI18C004.004	24,564	AI58C004.004	266,460
AI19C002.004	70,224	AI59C002.004	253,496
AI21C512.004	41,969	AI61C512.004	312,949
AI22C256.004	41,968	AI62C256.004	312,948
AI23C128.004	41,964	AI63C128.004	312,944
AI24C064.004	41,948	AI64C064.004	312,928
AI25C032.004	41,948	AI65C032.004	312,864
AI26C016.004	42,128	AI66C016.004	312,608
AI27C008.004	43,396	AI67C008.004	311,584
AI28C004.004	50,632	AI68C004.004	307,488
AI29C002.004	87,808	AI69C002.004	291,184
AI31C512.004	92,265	AI71C512.004	309,785
AI32C256.004	92,264	AI72C256.004	309,784
AI33C128.004	92,260	AI73C128.004	309,780
AI34C064.004	92,244	AI74C064.004	309,764
AI35C032.004	92,192	AI75C032.004	309,700
AI36C016.004	92,092	AI76C016.004	309,444
AI37C008.004	92,356	AI77C008.004	308,420
AI38C004.004	96,120	AI78C004.004	304,324
AI39C002.004	120,720	AI79C002.004	287,996

Table A.1.2 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 008

AI01C512.008	745	AI41C512.008	183,933
AI02C256.008	744	AI42C256.008	183,932
AI03C128.008	744	AI43C128.008	183,928
AI04C064.008	764	AI44C064.008	183,912
AI05C032.008	912	AI45C032.008	183,848
AI06C016.008	1,620	AI46C016.008	183,600
AI07C008.008	4,608	AI47C008.008	182,772
AI08C004.008	16,760	AI48C004.008	180,964
AI09C002.008	65,736	AI49C002.008	183,880
AI11C512.008	12,325	AI51C512.008	275,829
AI12C256.008	12,324	AI52C256.008	275,828
AI13C128.008	12,320	AI53C128.008	275,824
AI14C064.008	12,312	AI54C064.008	275,808
AI15C032.008	12,352	AI55C032.008	275,744
AI16C016.008	12,696	AI56C016.008	275,488
AI17C008.008	14,740	AI57C008.008	274,464
AI18C004.008	24,860	AI58C004.008	270,492
AI19C002.008	70,412	AI59C002.008	257,232
AI21C512.008	42,893	AI61C512.008	315,753
AI22C256.008	42,892	AI62C256.008	315,752
AI23C128.008	42,888	AI63C128.008	315,748
AI24C064.008	42,876	AI64C064.008	315,732
AI25C032.008	42,880	AI65C032.008	315,668
AI26C016.008	43,060	AI66C016.008	315,412
AI27C008.008	44,324	AI67C008.008	314,388
AI28C004.008	51,520	AI68C004.008	310,292
AI29C002.008	88,428	AI69C002.008	293,960
AI31C512.008	93,489	AI71C512.008	309,333
AI32C256.008	93,488	AI72C256.008	309,332
AI33C128.008	93,484	AI73C128.008	309,328
AI34C064.008	93,468	AI74C064.008	309,312
AI35C032.008	93,420	AI75C032.008	309,248
AI36C016.008	93,336	AI76C016.008	308,992
AI37C008.008	93,668	AI77C008.008	307,968
AI38C004.008	97,464	AI78C004.008	303,872
AI39C002.008	121,912	AI79C002.008	287,544

Table A.1.3 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 016

AI01C512.016	753	AI41C512.016	184,437
AI02C256.016	752	AI42C256.016	184,436
AI03C128.016	752	AI43C128.016	184,432
AI04C064.016	772	AI44C064.016	184,416
AI05C032.016	920	AI45C032.016	184,352
AI06C016.016	1,628	AI46C016.016	184,104
AI07C008.016	4,616	AI47C008.016	183,276
AI08C004.016	16,768	AI48C004.016	181,436
AI09C002.016	65,740	AI49C002.016	184,360
AI11C512.016	12,545	AI51C512.016	276,993
AI12C256.016	12,544	AI52C256.016	276,992
AI13C128.016	12,540	AI53C128.016	276,988
AI14C064.016	12,532	AI54C064.016	276,972
AI15C032.016	12,572	AI55C032.016	276,908
AI16C016.016	12,908	AI56C016.016	276,652
AI17C008.016	14,924	AI57C008.016	275,628
AI18C004.016	24,992	AI58C004.016	271,648
AI19C002.016	70,488	AI59C002.016	258,304
AI21C512.016	43,129	AI61C512.016	316,981
AI22C256.016	43,128	AI62C256.016	316,980
AI23C128.016	43,124	AI63C128.016	316,976
AI24C064.016	43,112	AI64C064.016	316,960
AI25C032.016	43,112	AI65C032.016	316,896
AI26C016.016	43,292	AI66C016.016	316,640
AI27C008.016	44,552	AI67C008.016	315,616
AI28C004.016	51,716	AI68C004.016	311,520
AI29C002.016	88,576	AI69C002.016	295,164
AI31C512.016	93,709	AI71C512.016	309,681
AI32C256.016	93,708	AI72C256.016	309,680
AI33C128.016	93,704	AI73C128.016	309,676
AI34C064.016	93,688	AI74C064.016	309,660
AI35C032.016	93,640	AI75C032.016	309,596
AI36C016.016	93,548	AI76C016.016	309,340
AI37C008.016	93,864	AI77C008.016	308,316
AI38C004.016	97,644	AI78C004.016	304,220
AI39C002.016	122,076	AI79C002.016	287,904

Table A.1.4 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 032

AI01C512.032	769	AI41C512.032	184,557
AI02C256.032	768	AI42C256.032	184,556
AI03C128.032	768	AI43C128.032	184,552
AI04C064.032	788	AI44C064.032	184,536
AI05C032.032	936	AI45C032.032	184,472
AI06C016.032	1,644	AI46C016.032	184,224
AI07C008.032	4,628	AI47C008.032	183,404
AI08C004.032	16,776	AI48C004.032	181,604
AI09C002.032	65,744	AI49C002.032	184,536
AI11C512.032	12,565	AI51C512.032	277,453
AI12C256.032	12,564	AI52C256.032	277,452
AI13C128.032	12,560	AI53C128.032	277,448
AI14C064.032	12,552	AI54C064.032	277,432
AI15C032.032	12,592	AI55C032.032	277,368
AI16C016.032	12,928	AI56C016.032	277,112
AI17C008.032	14,952	AI57C008.032	276,088
AI18C004.032	25,024	AI58C004.032	272,100
AI19C002.032	70,512	AI59C002.032	258,692
AI21C512.032	43,213	AI61C512.032	317,533
AI22C256.032	43,212	AI62C256.032	317,532
AI23C128.032	43,208	AI63C128.032	317,528
AI24C064.032	43,192	AI64C064.032	317,512
AI25C032.032	43,188	AI65C032.032	317,448
AI26C016.032	43,360	AI66C016.032	317,192
AI27C008.032	44,612	AI67C008.032	316,168
AI28C004.032	51,768	AI68C004.032	312,072
AI29C002.032	88,620	AI69C002.032	295,724
AI31C512.032	93,669	AI71C512.032	310,073
AI32C256.032	93,668	AI72C256.032	310,072
AI33C128.032	93,664	AI73C128.032	310,068
AI34C064.032	93,648	AI74C064.032	310,052
AI35C032.032	93,600	AI75C032.032	309,988
AI36C016.032	93,516	AI76C016.032	309,732
AI37C008.032	93,836	AI77C008.032	308,708
AI38C004.032	97,648	AI78C004.032	304,612
AI39C002.032	122,188	AI79C002.032	288,296

Table A.1.5 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 064

AI01C512.064	805	AI41C512.064	184,201
AI02C256.064	804	AI42C256.064	184,200
AI03C128.064	804	AI43C128.064	184,196
AI04C064.064	824	AI44C064.064	184,180
AI05C032.064	972	AI45C032.064	184,116
AI06C016.064	1,680	AI46C016.064	183,868
AI07C008.064	4,664	AI47C008.064	183,064
AI08C004.064	16,804	AI48C004.064	181,308
AI09C002.064	65,764	AI49C002.064	184,368
AI11C512.064	12,545	AI51C512.064	277,981
AI12C256.064	12,544	AI52C256.064	277,980
AI13C128.064	12,540	AI53C128.064	277,976
AI14C064.064	12,532	AI54C064.064	277,960
AI15C032.064	12,572	AI55C032.064	277,896
AI16C016.064	12,908	AI56C016.064	277,640
AI17C008.064	14,940	AI57C008.064	276,616
AI18C004.064	25,012	AI58C004.064	272,628
AI19C002.064	70,504	AI59C002.064	259,200
AI21C512.064	43,233	AI61C512.064	317,521
AI22C256.064	43,232	AI62C256.064	317,520
AI23C128.064	43,228	AI63C128.064	317,516
AI24C064.064	43,212	AI64C064.064	317,500
AI25C032.064	43,212	AI65C032.064	317,436
AI26C016.064	43,388	AI66C016.064	317,180
AI27C008.064	44,644	AI67C008.064	316,156
AI28C004.064	51,808	AI68C004.064	312,060
AI29C002.064	88,640	AI69C002.064	295,720
AI31C512.064	93,697	AI71C512.064	310,077
AI32C256.064	93,696	AI72C256.064	310,076
AI33C128.064	93,692	AI73C128.064	310,072
AI34C064.064	93,676	AI74C064.064	310,056
AI35C032.064	93,628	AI75C032.064	309,992
AI36C016.064	93,536	AI76C016.064	309,736
AI37C008.064	93,852	AI77C008.064	308,712
AI38C004.064	97,660	AI78C004.064	304,616
AI39C002.064	122,176	AI79C002.064	288,300

Table A.1.6 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 128

AI01C512.128	805	AI41C512.128	184,217
AI02C256.128	804	AI42C256.128	184,216
AI03C128.128	804	AI43C128.128	184,212
AI04C064.128	824	AI44C064.128	184,196
AI05C032.128	972	AI45C032.128	184,132
AI06C016.128	1,680	AI46C016.128	183,884
AI07C008.128	4,664	AI47C008.128	183,076
AI08C004.128	16,804	AI48C004.128	181,300
AI09C002.128	65,764	AI49C002.128	184,376
AI11C512.128	12,577	AI51C512.128	277,693
AI12C256.128	12,576	AI52C256.128	277,692
AI13C128.128	12,572	AI53C128.128	277,688
AI14C064.128	12,564	AI54C064.128	277,672
AI15C032.128	12,604	AI55C032.128	277,608
AI16C016.128	12,940	AI56C016.128	277,352
AI17C008.128	14,972	AI57C008.128	276,328
AI18C004.128	25,044	AI58C004.128	272,344
AI19C002.128	70,524	AI59C002.128	258,952
AI21C512.128	43,237	AI61C512.128	317,629
AI22C256.128	43,236	AI62C256.128	317,628
AI23C128.128	43,232	AI63C128.128	317,624
AI24C064.128	43,216	AI64C064.128	317,608
AI25C032.128	43,216	AI65C032.128	317,544
AI26C016.128	43,392	AI66C016.128	317,288
AI27C008.128	44,648	AI67C008.128	316,264
AI28C004.128	51,812	AI68C004.128	312,168
AI29C002.128	88,644	AI69C002.128	295,828
AI31C512.128	93,733	AI71C512.128	310,137
AI32C256.128	93,732	AI72C256.128	310,136
AI33C128.128	93,728	AI73C128.128	310,132
AI34C064.128	93,712	AI74C064.128	310,116
AI35C032.128	93,664	AI75C032.128	310,052
AI36C016.128	93,572	AI76C016.128	309,796
AI37C008.128	93,884	AI77C008.128	308,772
AI38C004.128	97,684	AI78C004.128	304,676
AI39C002.128	122,184	AI79C002.128	288,364

Table A.1.7 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 256

AI01C512.256	805	AI41C512.256	184,029
AI02C256.256	804	AI42C256.256	184,028
AI03C128.256	804	AI43C128.256	184,024
AI04C064.256	824	AI44C064.256	184,008
AI05C032.256	972	AI45C032.256	183,944
AI06C016.256	1,680	AI46C016.256	183,704
AI07C008.256	4,664	AI47C008.256	182,908
AI08C004.256	16,804	AI48C004.256	181,152
AI09C002.256	65,764	AI49C002.256	184,236
AI11C512.256	12,545	AI51C512.256	277,417
AI12C256.256	12,544	AI52C256.256	277,416
AI13C128.256	12,540	AI53C128.256	277,412
AI14C064.256	12,532	AI54C064.256	277,396
AI15C032.256	12,572	AI55C032.256	277,332
AI16C016.256	12,908	AI56C016.256	277,076
AI17C008.256	14,940	AI57C008.256	276,052
AI18C004.256	25,012	AI58C004.256	272,064
AI19C002.256	70,504	AI59C002.256	258,712
AI21C512.256	43,233	AI61C512.256	317,469
AI22C256.256	43,232	AI62C256.256	317,468
AI23C128.256	43,228	AI63C128.256	317,464
AI24C064.256	43,212	AI64C064.256	317,448
AI25C032.256	43,212	AI65C032.256	317,384
AI26C016.256	43,388	AI66C016.256	317,128
AI27C008.256	44,644	AI67C008.256	316,104
AI28C004.256	51,808	AI68C004.256	312,008
AI29C002.256	88,640	AI69C002.256	295,696
AI31C512.256	93,733	AI71C512.256	311,681
AI32C256.256	93,732	AI72C256.256	311,680
AI33C128.256	93,728	AI73C128.256	311,676
AI34C064.256	93,712	AI74C064.256	311,660
AI35C032.256	93,664	AI75C032.256	311,596
AI36C016.256	93,572	AI76C016.256	311,340
AI37C008.256	93,880	AI77C008.256	310,316
AI38C004.256	97,672	AI78C004.256	306,220
AI39C002.256	122,172	AI79C002.256	289,900

Table A.1.8 For Airplane

Compressed Planes Results
Image: Airplane.bin at Entropy Block size = 512

AI01C512.512	805	AI41C512.512	184,029
AI02C256.512	804	AI42C256.512	184,028
AI03C128.512	804	AI43C128.512	184,024
AI04C064.512	824	AI44C064.512	184,008
AI05C032.512	972	AI45C032.512	183,944
AI06C016.512	1,680	AI46C016.512	183,704
AI07C008.512	4,664	AI47C008.512	182,908
AI08C004.512	16,804	AI48C004.512	181,152
AI09C002.512	65,764	AI49C002.512	184,236
AI11C512.512	12,545	AI51C512.512	277,417
AI12C256.512	12,544	AI52C256.512	277,416
AI13C128.512	12,540	AI53C128.512	277,412
AI14C064.512	12,532	AI54C064.512	277,396
AI15C032.512	12,572	AI55C032.512	277,332
AI16C016.512	12,908	AI56C016.512	277,076
AI17C008.512	14,940	AI57C008.512	276,052
AI18C004.512	25,012	AI58C004.512	272,064
AI19C002.512	70,504	AI59C002.512	258,712
AI21C512.512	43,233	AI61C512.512	317,469
AI22C256.512	43,232	AI62C256.512	317,468
AI23C128.512	43,228	AI63C128.512	317,464
AI24C064.512	43,212	AI64C064.512	317,448
AI25C032.512	43,212	AI65C032.512	317,384
AI26C016.512	43,388	AI66C016.512	317,128
AI27C008.512	44,644	AI67C008.512	316,104
AI28C004.512	51,808	AI68C004.512	312,008
AI29C002.512	88,640	AI69C002.512	295,696
AI31C512.512	93,733	AI71C512.512	311,681
AI32C256.512	93,732	AI72C256.512	311,680
AI33C128.512	93,728	AI73C128.512	311,676
AI34C064.512	93,712	AI74C064.512	311,660
AI35C032.512	93,664	AI75C032.512	311,596
AI36C016.512	93,572	AI76C016.512	311,340
AI37C008.512	93,880	AI77C008.512	310,316
AI38C004.512	97,672	AI78C004.512	306,220
AI39C002.512	122,172	AI79C002.512	289,900

Table A.1.9 For Airplane

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 002

AN01C512.002	23,385	AN41C512.002	118,881
AN02C256.002	23,384	AN42C256.002	118,880
AN03C128.002	23,380	AN43C128.002	118,876
AN04C064.002	23,364	AN44C064.002	118,860
AN05C032.002	**23,312**	AN45C032.002	118,796
AN06C016.002	23,324	AN46C016.002	**118,628**
AN07C008.002	24,756	AN47C008.002	118,924
AN08C004.002	33,832	AN48C004.002	123,132
AN09C002.002	76,568	AN49C002.002	145,716
AN11C512.002	45,137	AN51C512.002	134,365
AN12C256.002	45,136	AN52C256.002	134,364
AN13C128.002	45,132	AN53C128.002	134,360
AN14C064.002	45,116	AN54C064.002	134,344
AN15C032.002	**45,052**	AN55C032.002	134,280
AN16C016.002	44,992	AN56C016.002	**134,072**
AN17C008.002	46,072	AN57C008.002	134,224
AN18C004.002	53,812	AN58C004.002	137,596
AN19C002.002	90,392	AN59C002.002	156,944
AN21C512.002	79,285	AN61C512.002	148,917
AN22C256.002	79,284	AN62C256.002	148,916
AN23C128.002	79,280	AN63C128.002	148,912
AN24C064.002	79,264	AN64C064.002	148,896
AN25C032.002	79,200	AN65C032.002	148,832
AN26C016.002	**79,056**	AN66C016.002	**148,620**
AN27C008.002	79,764	AN67C008.002	148,652
AN28C004.002	85,984	AN68C004.002	151,612
AN29C002.002	116,116	AN69C002.002	168,512
AN31C512.002	103,221	AN71C512.002	152,913
AN32C256.002	103,220	AN72C256.002	152,912
AN33C128.002	103,216	AN73C128.002	152,908
AN34C064.002	103,200	AN74C064.002	152,892
AN35C032.002	103,136	AN75C032.002	152,828
AN36C016.002	**102,976**	AN76C016.002	**152,616**
AN37C008.002	103,428	AN77C008.002	152,636
AN38C004.002	108,420	AN78C004.002	155,628
AN39C002.002	134,232	AN79C002.002	172,312

Table A.2.1 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 004

AN01C512.004	23,497	AN41C512.004	120,489
AN02C256.004	23,496	AN42C256.004	120,488
AN03C128.004	23,492	AN43C128.004	120,484
AN04C064.004	23,476	AN44C064.004	120,468
AN05C032.004	**23,424**	AN45C032.004	120,404
AN06C016.004	23,440	AN46C016.004	**120,232**
AN07C008.004	24,872	AN47C008.004	120,520
AN08C004.004	33,952	AN48C004.004	124,700
AN09C002.004	76,664	AN49C002.004	147,164
AN11C512.004	45,721	AN51C512.004	136,269
AN12C256.004	45,720	AN52C256.004	136,268
AN13C128.004	45,716	AN53C128.004	136,264
AN14C064.004	45,700	AN54C064.004	136,248
AN15C032.004	45,636	AN55C032.004	136,184
AN16C016.004	**45,568**	AN56C016.004	**135,976**
AN17C008.004	46,636	AN57C008.004	136,120
AN18C004.004	54,336	AN58C004.004	139,464
AN19C002.004	90,788	AN59C002.004	158,632
AN21C512.004	80,241	AN61C512.004	150,949
AN22C256.004	80,240	AN62C256.004	150,948
AN23C128.004	80,236	AN63C128.004	150,944
AN24C064.004	80,220	AN64C064.004	150,928
AN25C032.004	80,156	AN65C032.004	150,864
AN26C016.004	**80,008**	AN66C016.004	**150,652**
AN27C008.004	80,704	AN67C008.004	150,684
AN28C004.004	86,880	AN68C004.004	153,644
AN29C002.004	116,908	AN69C002.004	170,432
AN31C512.004	104,265	AN71C512.004	152,465
AN32C256.004	104,264	AN72C256.004	152,464
AN33C128.004	104,260	AN73C128.004	152,460
AN34C064.004	104,244	AN74C064.004	152,444
AN35C032.004	104,180	AN75C032.004	152,380
AN36C016.004	**104,016**	AN76C016.004	**152,168**
AN37C008.004	104,456	AN77C008.004	152,196
AN38C004.004	109,444	AN78C004.004	155,204
AN39C002.004	135,120	AN79C002.004	171,936

Table A.2.2 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 008

AN01C512.008	23,597	AN41C512.008	121,173
AN02C256.008	23,596	AN42C256.008	121,172
AN03C128.008	23,592	AN43C128.008	121,168
AN04C064.008	23,576	AN44C064.008	121,152
AN05C032.008	**23,524**	AN45C032.008	121,088
AN06C016.008	23,536	AN46C016.008	**120,916**
AN07C008.008	24,960	AN47C008.008	121,200
AN08C004.008	34,028	AN48C004.008	125,372
AN09C002.008	76,724	AN49C002.008	147,696
AN11C512.008	45,897	AN51C512.008	137,141
AN12C256.008	45,896	AN52C256.008	137,140
AN13C128.008	45,892	AN53C128.008	137,136
AN14C064.008	45,876	AN54C064.008	137,120
AN15C032.008	45,812	AN55C032.008	137,056
AN16C016.008	**45,740**	AN56C016.008	**136,848**
AN17C008.008	46,800	AN57C008.008	136,992
AN18C004.008	54,472	AN58C004.008	140,336
AN19C002.008	90,880	AN59C002.008	159,436
AN21C512.008	80,505	AN61C512.008	151,529
AN22C256.008	80,504	AN62C256.008	151,528
AN23C128.008	80,500	AN63C128.008	151,524
AN24C064.008	80,484	AN64C064.008	151,508
AN25C032.008	80,420	AN65C032.008	151,444
AN26C016.008	**80,276**	AN66C016.008	**151,232**
AN27C008.008	80,972	AN67C008.008	151,264
AN28C004.008	87,112	AN68C004.008	154,224
AN29C002.008	117,072	AN69C002.008	171,028
AN31C512.008	104,617	AN71C512.008	152,733
AN32C256.008	104,616	AN72C256.008	152,732
AN33C128.008	104,612	AN73C128.008	152,728
AN34C064.008	104,596	AN74C064.008	152,712
AN35C032.008	104,532	AN75C032.008	152,648
AN36C016.008	**104,368**	AN76C016.008	**152,436**
AN37C008.008	104,804	AN77C008.008	152,464
AN38C004.008	109,776	AN78C004.008	155,472
AN39C002.008	135,400	AN79C002.008	172,200

Table A.2.3 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 016

AN01C512.016	23,585	AN41C512.016	121,789
AN02C256.016	23,584	AN42C256.016	121,788
AN03C128.016	23,580	AN43C128.016	121,784
AN04C064.016	23,564	AN44C064.016	121,768
AN05C032.016	**23,512**	AN45C032.016	121,704
AN06C016.016	23,528	AN46C016.016	**121,532**
AN07C008.016	24,960	AN47C008.016	121,816
AN08C004.016	34,028	AN48C004.016	125,980
AN09C002.016	76,728	AN49C002.016	148,264
AN11C512.016	45,785	AN51C512.016	137,545
AN12C256.016	45,784	AN52C256.016	137,544
AN13C128.016	45,780	AN53C128.016	137,540
AN14C064.016	45,764	AN54C064.016	137,524
AN15C032.016	45,700	AN55C032.016	137,460
AN16C016.016	**45,628**	AN56C016.016	**137,252**
AN17C008.016	46,688	AN57C008.016	137,396
AN18C004.016	54,376	AN58C004.016	140,744
AN19C002.016	90,816	AN59C002.016	159,820
AN21C512.016	80,857	AN61C512.016	151,901
AN22C256.016	80,856	AN62C256.016	151,900
AN23C128.016	80,852	AN63C128.016	151,896
AN24C064.016	80,836	AN64C064.016	151,880
AN25C032.016	80,772	AN65C032.016	151,816
AN26C016.016	**80,628**	AN66C016.016	**151,604**
AN27C008.016	81,324	AN67C008.016	151,636
AN28C004.016	87,444	AN68C004.016	154,596
AN29C002.016	117,324	AN69C002.016	171,380
AN31C512.016	104,985	AN71C512.016	153,433
AN32C256.016	104,984	AN72C256.016	153,432
AN33C128.016	104,980	AN73C128.016	153,428
AN34C064.016	104,964	AN74C064.016	153,412
AN35C032.016	104,900	AN75C032.016	153,348
AN36C016.016	**104,736**	AN76C016.016	**153,136**
AN37C008.016	105,176	AN77C008.016	153,164
AN38C004.016	110,140	AN78C004.016	156,160
AN39C002.016	135,760	AN79C002.016	172,804

Table A.2.4 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 032

AN01C512.032	23,573	AN41C512.032	121,721
AN02C256.032	23,572	AN42C256.032	121,720
AN03C128.032	23,568	AN43C128.032	121,716
AN04C064.032	23,552	AN44C064.032	121,700
AN05C032.032	**23,500**	AN45C032.032	121,636
AN06C016.032	23,516	AN46C016.032	**121,464**
AN07C008.032	24,948	AN47C008.032	121,748
AN08C004.032	34,016	AN48C004.032	125,904
AN09C002.032	76,720	AN49C002.032	148,200
AN11C512.032	45,805	AN51C512.032	137,509
AN12C256.032	45,804	AN52C256.032	137,508
AN13C128.032	45,800	AN53C128.032	137,504
AN14C064.032	45,784	AN54C064.032	137,488
AN15C032.032	45,720	AN55C032.032	137,424
AN16C016.032	**45,648**	AN56C016.032	**137,216**
AN17C008.032	46,700	AN57C008.032	137,360
AN18C004.032	54,380	AN58C004.032	140,708
AN19C002.032	90,812	AN59C002.032	159,788
AN21C512.032	80,981	AN61C512.032	152,033
AN22C256.032	80,980	AN62C256.032	152,032
AN23C128.032	80,976	AN63C128.032	152,028
AN24C064.032	80,960	AN64C064.032	152,012
AN25C032.032	80,896	AN65C032.032	151,948
AN26C016.032	**80,752**	AN66C016.032	**151,736**
AN27C008.032	81,436	AN67C008.032	151,768
AN28C004.032	87,536	AN68C004.032	154,728
AN29C002.032	117,384	AN69C002.032	171,504
AN31C512.032	105,109	AN71C512.032	154,657
AN32C256.032	105,108	AN72C256.032	154,656
AN33C128.032	105,104	AN73C128.032	154,652
AN34C064.032	105,088	AN74C064.032	154,636
AN35C032.032	105,024	AN75C032.032	154,572
AN36C016.032	**104,860**	AN76C016.032	**154,360**
AN37C008.032	105,296	AN77C008.032	154,388
AN38C004.032	110,252	AN78C004.032	157,336
AN39C002.032	135,848	AN79C002.032	173,768

Table A.2.5 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 064

AN01C512.064	23,573	AN41C512.064	121,745
AN02C256.064	23,572	AN42C256.064	121,744
AN03C128.064	23,568	AN43C128.064	121,740
AN04C064.064	23,552	AN44C064.064	121,724
AN05C032.064	**23,500**	AN45C032.064	121,660
AN06C016.064	23,516	AN46C016.064	**121,488**
AN07C008.064	24,948	AN47C008.064	121,772
AN08C004.064	34,016	AN48C004.064	125,932
AN09C002.064	76,720	AN49C002.064	148,228
AN11C512.064	45,805	AN51C512.064	137,525
AN12C256.064	45,804	AN52C256.064	137,524
AN13C128.064	45,800	AN53C128.064	137,520
AN14C064.064	45,784	AN54C064.064	137,504
AN15C032.064	45,720	AN55C032.064	137,440
AN16C016.064	**45,648**	AN56C016.064	**137,232**
AN17C008.064	46,704	AN57C008.064	137,376
AN18C004.064	54,384	AN58C004.064	140,720
AN19C002.064	90,812	AN59C002.064	159,788
AN21C512.064	81,077	AN61C512.064	151,941
AN22C256.064	81,076	AN62C256.064	151,940
AN23C128.064	81,072	AN63C128.064	151,936
AN24C064.064	81,056	AN64C064.064	151,920
AN25C032.064	80,992	AN65C032.064	151,856
AN26C016.064	**80,844**	AN66C016.064	**151,644**
AN27C008.064	81,524	AN67C008.064	151,676
AN28C004.064	87,612	AN68C004.064	154,636
AN29C002.064	117,448	AN69C002.064	171,436
AN31C512.064	105,237	AN71C512.064	152,629
AN32C256.064	105,236	AN72C256.064	152,628
AN33C128.064	105,232	AN73C128.064	152,624
AN34C064.064	105,216	AN74C064.064	152,608
AN35C032.064	105,152	AN75C032.064	152,544
AN36C016.064	**104,984**	AN76C016.064	**152,332**
AN37C008.064	105,416	AN77C008.064	152,360
AN38C004.064	110,364	AN78C004.064	155,368
AN39C002.064	135,956	AN79C002.064	172,116

Table A.2.6 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 128

AN01C512.128	23,573	AN41C512.128	121,745
AN02C256.128	23,572	AN42C256.128	121,744
AN03C128.128	23,568	AN43C128.128	121,740
AN04C064.128	23,552	AN44C064.128	121,724
AN05C032.128	**23,500**	AN45C032.128	121,660
AN06C016.128	23,516	AN46C016.128	**121,488**
AN07C008.128	24,948	AN47C008.128	121,772
AN08C004.128	34,016	AN48C004.128	125,932
AN09C002.128	76,720	AN49C002.128	148,228
AN11C512.128	45,805	AN51C512.128	137,525
AN12C256.128	45,804	AN52C256.128	137,524
AN13C128.128	45,800	AN53C128.128	137,520
AN14C064.128	45,784	AN54C064.128	137,504
AN15C032.128	45,720	AN55C032.128	137,440
AN16C016.128	**45,648**	AN56C016.128	**137,232**
AN17C008.128	46,704	AN57C008.128	137,376
AN18C004.128	54,384	AN58C004.128	140,720
AN19C002.128	90,812	AN59C002.128	159,788
AN21C512.128	81,077	AN61C512.128	151,941
AN22C256.128	81,076	AN62C256.128	151,940
AN23C128.128	81,072	AN63C128.128	151,936
AN24C064.128	81,056	AN64C064.128	151,920
AN25C032.128	80,992	AN65C032.128	151,856
AN26C016.128	**80,844**	AN66C016.128	**151,644**
AN27C008.128	81,524	AN67C008.128	151,676
AN28C004.128	87,612	AN68C004.128	154,636
AN29C002.128	117,448	AN69C002.128	171,436
AN31C512.128	105,237	AN71C512.128	152,629
AN32C256.128	105,236	AN72C256.128	152,628
AN33C128.128	105,232	AN73C128.128	152,624
AN34C064.128	105,216	AN74C064.128	152,608
AN35C032.128	105,152	AN75C032.128	152,544
AN36C016.128	**104,984**	AN76C016.128	**152,332**
AN37C008.128	105,416	AN77C008.128	152,360
AN38C004.128	110,364	AN78C004.128	155,368
AN39C002.128	135,956	AN79C002.128	172,116

Table A.2.7 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 256

AN01C512.256	23,573	AN41C512.256	121,745
AN02C256.256	23,572	AN42C256.256	121,744
AN03C128.256	23,568	AN43C128.256	121,740
AN04C064.256	23,552	AN44C064.256	121,724
AN05C032.256	**23,500**	AN45C032.256	121,660
AN06C016.256	23,516	AN46C016.256	**121,488**
AN07C008.256	24,948	AN47C008.256	121,772
AN08C004.256	34,016	AN48C004.256	125,932
AN09C002.256	76,720	AN49C002.256	148,228
AN11C512.256	45,805	AN51C512.256	137,525
AN12C256.256	45,804	AN52C256.256	137,524
AN13C128.256	45,800	AN53C128.256	137,520
AN14C064.256	45,784	AN54C064.256	137,504
AN15C032.256	45,720	AN55C032.256	137,440
AN16C016.256	**45,648**	AN56C016.256	**137,232**
AN17C008.256	46,704	AN57C008.256	137,376
AN18C004.256	54,384	AN58C004.256	140,720
AN19C002.256	90,812	AN59C002.256	159,788
AN21C512.256	81,077	AN61C512.256	151,941
AN22C256.256	81,076	AN62C256.256	151,940
AN23C128.256	81,072	AN63C128.256	151,936
AN24C064.256	81,056	AN64C064.256	151,920
AN25C032.256	80,992	AN65C032.256	151,856
AN26C016.256	**80,844**	AN66C016.256	**151,644**
AN27C008.256	81,524	AN67C008.256	151,676
AN28C004.256	87,612	AN68C004.256	154,636
AN29C002.256	117,448	AN69C002.256	171,436
AN31C512.256	105,237	AN71C512.256	152,629
AN32C256.256	105,236	AN72C256.256	152,628
AN33C128.256	105,232	AN73C128.256	152,624
AN34C064.256	105,216	AN74C064.256	152,608
AN35C032.256	105,152	AN75C032.256	152,544
AN36C016.256	**104,984**	AN76C016.256	**152,332**
AN37C008.256	105,416	AN77C008.256	152,360
AN38C004.256	110,364	AN78C004.256	155,368
AN39C002.256	135,956	AN79C002.256	172,116

Table A.2.8 For Angles512

Compressed Planes Results
Image: Angle512.bin at Entropy Block size = 512

AN01C512.512	23,573	AN41C512.512	121,745
AN02C256.512	23,572	AN42C256.512	121,744
AN03C128.512	23,568	AN43C128.512	121,740
AN04C064.512	23,552	AN44C064.512	121,724
AN05C032.512	**23,500**	AN45C032.512	121,660
AN06C016.512	23,516	AN46C016.512	**121,488**
AN07C008.512	24,948	AN47C008.512	121,772
AN08C004.512	34,016	AN48C004.512	125,932
AN09C002.512	76,720	AN49C002.512	148,228
AN11C512.512	45,805	AN51C512.512	137,525
AN12C256.512	45,804	AN52C256.512	137,524
AN13C128.512	45,800	AN53C128.512	137,520
AN14C064.512	45,784	AN54C064.512	137,504
AN15C032.512	45,720	AN55C032.512	137,440
AN16C016.512	**45,648**	AN56C016.512	**137,232**
AN17C008.512	46,704	AN57C008.512	137,376
AN18C004.512	54,384	AN58C004.512	140,720
AN19C002.512	90,812	AN59C002.512	159,788
AN21C512.512	81,077	AN61C512.512	151,941
AN22C256.512	81,076	AN62C256.512	151,940
AN23C128.512	81,072	AN63C128.512	151,936
AN24C064.512	81,056	AN64C064.512	151,920
AN25C032.512	80,992	AN65C032.512	151,856
AN26C016.512	**80,844**	AN66C016.512	**151,644**
AN27C008.512	81,524	AN67C008.512	151,676
AN28C004.512	87,612	AN68C004.512	154,636
AN29C002.512	117,448	AN69C002.512	171,436
AN31C512.512	105,237	AN71C512.512	152,629
AN32C256.512	105,236	AN72C256.512	152,628
AN33C128.512	105,232	AN73C128.512	152,624
AN34C064.512	105,216	AN74C064.512	152,608
AN35C032.512	105,152	AN75C032.512	152,544
AN36C016.512	**104,984**	AN76C016.512	**152,332**
AN37C008.512	105,416	AN77C008.512	152,360
AN38C004.512	110,364	AN78C004.512	155,368
AN39C002.512	135,956	AN79C002.512	172,116

Table A.2.9 For Angles512

Compression Planes Results
Image: Baboon.bin at Block size = 002

BA01C512.002	31,385	BA41C512.002	314,809
BA02C256.002	31,384	BA42C256.002	314,808
BA03C128.002	31,380	BA43C128.002	314,804
BA04C064.002	31,368	BA44C064.002	314,788
BA05C032.002	31,364	BA45C032.002	314,724
BA06C016.002	31,528	BA46C016.002	314,468
BA07C008.002	32,740	BA47C008.002	313,444
BA08C004.002	40,112	BA48C004.002	309,348
BA09C002.002	79,540	BA49C002.002	293,068
BA11C512.002	121,073	BA51C512.002	324,785
BA12C256.002	121,072	BA52C256.002	324,784
BA13C128.002	121,068	BA53C128.002	324,780
BA14C064.002	121,052	BA54C064.002	324,764
BA15C032.002	120,988	BA55C032.002	324,700
BA16C016.002	120,836	BA56C016.002	324,444
BA17C008.002	120,812	BA57C008.002	323,420
BA18C004.002	122,584	BA58C004.002	319,324
BA19C002.002	139,220	BA59C002.002	302,944
BA21C512.002	210,465	BA61C512.002	329,529
BA22C256.002	210,464	BA62C256.002	329,528
BA23C128.002	210,460	BA63C128.002	329,524
BA24C064.002	210,444	BA64C064.002	329,508
BA25C032.002	210,380	BA65C032.002	329,444
BA26C016.002	210,124	BA66C016.002	329,188
BA27C008.002	209,164	BA67C008.002	328,164
BA28C004.002	206,736	BA68C004.002	324,068
BA29C002.002	204,988	BA69C002.002	307,688
BA31C512.002	283,585	BA71C512.002	336,389
BA32C256.002	283,584	BA72C256.002	336,388
BA33C128.002	283,580	BA73C128.002	336,384
BA34C064.002	283,564	BA74C064.002	336,368
BA35C032.002	283,500	BA75C032.002	336,304
BA36C016.002	283,244	BA76C016.002	336,048
BA37C008.002	282,220	BA77C008.002	335,024
BA38C004.002	278,132	BA78C004.002	330,928
BA39C002.002	263,728	BA79C002.002	314,544

Table A.3.1 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 004

BA01C512.004	31,381	BA41C512.004	318,465
BA02C256.004	31,380	BA42C256.004	318,464
BA03C128.004	31,376	BA43C128.004	318,460
BA04C064.004	31,364	BA44C064.004	318,444
BA05C032.004	31,356	BA45C032.004	318,380
BA06C016.004	31,516	BA46C016.004	318,124
BA07C008.004	32,732	BA47C008.004	317,100
BA08C004.004	40,132	BA48C004.004	313,004
BA09C002.004	79,560	BA49C002.004	296,668
BA11C512.004	122,329	BA51C512.004	326,949
BA12C256.004	122,328	BA52C256.004	326,948
BA13C128.004	122,324	BA53C128.004	326,944
BA14C064.004	122,308	BA54C064.004	326,928
BA15C032.004	122,244	BA55C032.004	326,864
BA16C016.004	122,096	BA56C016.004	326,608
BA17C008.004	122,076	BA57C008.004	325,584
BA18C004.004	123,816	BA58C004.004	321,488
BA19C002.004	140,224	BA59C002.004	305,104
BA21C512.004	213,553	BA61C512.004	330,541
BA22C256.004	213,552	BA62C256.004	330,540
BA23C128.004	213,548	BA63C128.004	330,536
BA24C064.004	213,532	BA64C064.004	330,520
BA25C032.004	213,468	BA65C032.004	330,456
BA26C016.004	213,212	BA66C016.004	330,200
BA27C008.004	212,244	BA67C008.004	329,176
BA28C004.004	209,772	BA68C004.004	325,080
BA29C002.004	207,748	BA69C002.004	308,704
BA31C512.004	287,653	BA71C512.004	335,097
BA32C256.004	287,652	BA72C256.004	335,096
BA33C128.004	287,648	BA73C128.004	335,092
BA34C064.004	287,632	BA74C064.004	335,076
BA35C032.004	287,568	BA75C032.004	335,012
BA36C016.004	287,312	BA76C016.004	334,756
BA37C008.004	286,288	BA77C008.004	333,732
BA38C004.004	282,204	BA78C004.004	329,636
BA39C002.004	267,580	BA79C002.004	313,252

Table A.3.2 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 008

BA01C512.008	31,073	BA41C512.008	319,645
BA02C256.008	31,072	BA42C256.008	319,644
BA03C128.008	31,068	BA43C128.008	319,640
BA04C064.008	31,056	BA44C064.008	319,624
BA05C032.008	31,052	BA45C032.008	319,560
BA06C016.008	31,212	BA46C016.008	319,304
BA07C008.008	32,420	BA47C008.008	318,280
BA08C004.008	39,872	BA48C004.008	314,184
BA09C002.008	79,424	BA49C002.008	297,836
BA11C512.008	122,569	BA51C512.008	327,741
BA12C256.008	122,568	BA52C256.008	327,740
BA13C128.008	122,564	BA53C128.008	327,736
BA14C064.008	122,548	BA54C064.008	327,720
BA15C032.008	122,484	BA55C032.008	327,656
BA16C016.008	122,336	BA56C016.008	327,400
BA17C008.008	122,320	BA57C008.008	326,376
BA18C004.008	124,068	BA58C004.008	322,280
BA19C002.008	140,464	BA59C002.008	305,896
BA21C512.008	214,381	BA61C512.008	330,873
BA22C256.008	214,380	BA62C256.008	330,872
BA23C128.008	214,376	BA63C128.008	330,868
BA24C064.008	214,360	BA64C064.008	330,852
BA25C032.008	214,296	BA65C032.008	330,788
BA26C016.008	214,040	BA66C016.008	330,532
BA27C008.008	213,068	BA67C008.008	329,508
BA28C004.008	210,616	BA68C004.008	325,412
BA29C002.008	208,512	BA69C002.008	309,036
BA31C512.008	289,181	BA71C512.008	334,709
BA32C256.008	289,180	BA72C256.008	334,708
BA33C128.008	289,176	BA73C128.008	334,704
BA34C064.008	289,160	BA74C064.008	334,688
BA35C032.008	289,096	BA75C032.008	334,624
BA36C016.008	288,840	BA76C016.008	334,368
BA37C008.008	287,816	BA77C008.008	333,344
BA38C004.008	283,724	BA78C004.008	329,248
BA39C002.008	269,036	BA79C002.008	312,868

Table A.3.3 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 016

BA01C512.016	30,933	BA41C512.016	320,013
BA02C256.016	30,932	BA42C256.016	320,012
BA03C128.016	30,928	BA43C128.016	320,008
BA04C064.016	30,916	BA44C064.016	319,992
BA05C032.016	30,912	BA45C032.016	319,928
BA06C016.016	31,076	BA46C016.016	319,672
BA07C008.016	32,292	BA47C008.016	318,648
BA08C004.016	39,764	BA48C004.016	314,552
BA09C002.016	79,352	BA49C002.016	298,220
BA11C512.016	122,553	BA51C512.016	327,777
BA12C256.016	122,552	BA52C256.016	327,776
BA13C128.016	122,548	BA53C128.016	327,772
BA14C064.016	122,532	BA54C064.016	327,756
BA15C032.016	122,468	BA55C032.016	327,692
BA16C016.016	122,320	BA56C016.016	327,436
BA17C008.016	122,292	BA57C008.016	326,412
BA18C004.016	124,016	BA58C004.016	322,316
BA19C002.016	140,408	BA59C002.016	305,936
BA21C512.016	214,861	BA61C512.016	331,109
BA22C256.016	214,860	BA62C256.016	331,108
BA23C128.016	214,856	BA63C128.016	331,104
BA24C064.016	214,840	BA64C064.016	331,088
BA25C032.016	214,776	BA65C032.016	331,024
BA26C016.016	214,520	BA66C016.016	330,768
BA27C008.016	213,552	BA67C008.016	329,744
BA28C004.016	211,060	BA68C004.016	325,648
BA29C002.016	208,860	BA69C002.016	309,272
BA31C512.016	289,657	BA71C512.016	334,585
BA32C256.016	289,656	BA72C256.016	334,584
BA33C128.016	289,652	BA73C128.016	334,580
BA34C064.016	289,636	BA74C064.016	334,564
BA35C032.016	289,572	BA75C032.016	334,500
BA36C016.016	289,316	BA76C016.016	334,244
BA37C008.016	288,292	BA77C008.016	333,220
BA38C004.016	284,204	BA78C004.016	329,124
BA39C002.016	269,460	BA79C002.016	312,744

Table A.3.4 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 032

BA01C512.032	30,937	BA41C512.032	320,289
BA02C256.032	30,936	BA42C256.032	320,288
BA03C128.032	30,932	BA43C128.032	320,284
BA04C064.032	30,920	BA44C064.032	320,268
BA05C032.032	30,916	BA45C032.032	320,204
BA06C016.032	31,080	BA46C016.032	319,948
BA07C008.032	32,296	BA47C008.032	318,924
BA08C004.032	39,768	BA48C004.032	314,828
BA09C002.032	79,356	BA49C002.032	298,480
BA11C512.032	122,625	BA51C512.032	327,897
BA12C256.032	122,624	BA52C256.032	327,896
BA13C128.032	122,620	BA53C128.032	327,892
BA14C064.032	122,604	BA54C064.032	327,876
BA15C032.032	122,540	BA55C032.032	327,812
BA16C016.032	122,392	BA56C016.032	327,556
BA17C008.032	122,360	BA57C008.032	326,532
BA18C004.032	124,068	BA58C004.032	322,436
BA19C002.032	140,444	BA59C002.032	306,052
BA21C512.032	214,981	BA61C512.032	331,273
BA22C256.032	214,980	BA62C256.032	331,272
BA23C128.032	214,976	BA63C128.032	331,268
BA24C064.032	214,960	BA64C064.032	331,252
BA25C032.032	214,896	BA65C032.032	331,188
BA26C016.032	214,640	BA66C016.032	330,932
BA27C008.032	213,676	BA67C008.032	329,908
BA28C004.032	211,180	BA68C004.032	325,812
BA29C002.032	208,920	BA69C002.032	309,436
BA31C512.032	289,929	BA71C512.032	334,493
BA32C256.032	289,928	BA72C256.032	334,492
BA33C128.032	289,924	BA73C128.032	334,488
BA34C064.032	289,908	BA74C064.032	334,472
BA35C032.032	289,844	BA75C032.032	334,408
BA36C016.032	289,588	BA76C016.032	334,152
BA37C008.032	288,564	BA77C008.032	333,128
BA38C004.032	284,476	BA78C004.032	329,032
BA39C002.032	269,680	BA79C002.032	312,652

Table A.3.5 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 064

BA01C512.064	30,953	BA41C512.064	320,153
BA02C256.064	30,952	BA42C256.064	320,152
BA03C128.064	30,948	BA43C128.064	320,148
BA04C064.064	30,936	BA44C064.064	320,132
BA05C032.064	30,932	BA45C032.064	320,068
BA06C016.064	31,096	BA46C016.064	319,812
BA07C008.064	32,312	BA47C008.064	318,788
BA08C004.064	39,780	BA48C004.064	314,692
BA09C002.064	79,364	BA49C002.064	298,332
BA11C512.064	122,609	BA51C512.064	327,717
BA12C256.064	122,608	BA52C256.064	327,716
BA13C128.064	122,604	BA53C128.064	327,712
BA14C064.064	122,588	BA54C064.064	327,696
BA15C032.064	122,524	BA55C032.064	327,632
BA16C016.064	122,372	BA56C016.064	327,376
BA17C008.064	122,344	BA57C008.064	326,352
BA18C004.064	124,068	BA58C004.064	322,256
BA19C002.064	140,456	BA59C002.064	305,880
BA21C512.064	215,113	BA61C512.064	330,961
BA22C256.064	215,112	BA62C256.064	330,960
BA23C128.064	215,108	BA63C128.064	330,956
BA24C064.064	215,092	BA64C064.064	330,940
BA25C032.064	215,028	BA65C032.064	330,876
BA26C016.064	214,772	BA66C016.064	330,620
BA27C008.064	213,800	BA67C008.064	329,596
BA28C004.064	211,328	BA68C004.064	325,500
BA29C002.064	209,096	BA69C002.064	309,124
BA31C512.064	290,521	BA71C512.064	334,505
BA32C256.064	290,520	BA72C256.064	334,504
BA33C128.064	290,516	BA73C128.064	334,500
BA34C064.064	290,500	BA74C064.064	334,484
BA35C032.064	290,436	BA75C032.064	334,420
BA36C016.064	290,180	BA76C016.064	334,164
BA37C008.064	289,156	BA77C008.064	333,140
BA38C004.064	285,064	BA78C004.064	329,044
BA39C002.064	270,192	BA79C002.064	312,664

Table A.3.6 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 128

BA01C512.128	30,937	BA41C512.128	320,529
BA02C256.128	30,936	BA42C256.128	320,528
BA03C128.128	30,932	BA43C128.128	320,524
BA04C064.128	30,920	BA44C064.128	320,508
BA05C032.128	30,916	BA45C032.128	320,444
BA06C016.128	31,080	BA46C016.128	320,188
BA07C008.128	32,296	BA47C008.128	319,164
BA08C004.128	39,768	BA48C004.128	315,068
BA09C002.128	79,356	BA49C002.128	298,700
BA11C512.128	122,657	BA51C512.128	327,873
BA12C256.128	122,656	BA52C256.128	327,872
BA13C128.128	122,652	BA53C128.128	327,868
BA14C064.128	122,636	BA54C064.128	327,852
BA15C032.128	122,572	BA55C032.128	327,788
BA16C016.128	122,420	BA56C016.128	327,532
BA17C008.128	122,388	BA57C008.128	326,508
BA18C004.128	124,096	BA58C004.128	322,412
BA19C002.128	140,464	BA59C002.128	306,032
BA21C512.128	215,373	BA61C512.128	331,113
BA22C256.128	215,372	BA62C256.128	331,112
BA23C128.128	215,368	BA63C128.128	331,108
BA24C064.128	215,352	BA64C064.128	331,092
BA25C032.128	215,288	BA65C032.128	331,028
BA26C016.128	215,032	BA66C016.128	330,772
BA27C008.128	214,072	BA67C008.128	329,748
BA28C004.128	211,580	BA68C004.128	325,652
BA29C002.128	209,236	BA69C002.128	309,276
BA31C512.128	290,569	BA71C512.128	334,629
BA32C256.128	290,568	BA72C256.128	334,628
BA33C128.128	290,564	BA73C128.128	334,624
BA34C064.128	290,548	BA74C064.128	334,608
BA35C032.128	290,484	BA75C032.128	334,544
BA36C016.128	290,228	BA76C016.128	334,288
BA37C008.128	289,204	BA77C008.128	333,264
BA38C004.128	285,116	BA78C004.128	329,168
BA39C002.128	270,276	BA79C002.128	312,788

Table A.3.7 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 256

BA01C512.256	30,937	BA41C512.256	320,569
BA02C256.256	30,936	BA42C256.256	320,568
BA03C128.256	30,932	BA43C128.256	320,564
BA04C064.256	30,920	BA44C064.256	320,548
BA05C032.256	30,916	BA45C032.256	320,484
BA06C016.256	31,080	BA46C016.256	320,228
BA07C008.256	32,296	BA47C008.256	319,204
BA08C004.256	39,768	BA48C004.256	315,108
BA09C002.256	79,356	BA49C002.256	298,752
BA11C512.256	122,553	BA51C512.256	327,797
BA12C256.256	122,552	BA52C256.256	327,796
BA13C128.256	122,548	BA53C128.256	327,792
BA14C064.256	122,532	BA54C064.256	327,776
BA15C032.256	122,468	BA55C032.256	327,712
BA16C016.256	122,316	BA56C016.256	327,456
BA17C008.256	122,284	BA57C008.256	326,432
BA18C004.256	124,004	BA58C004.256	322,336
BA19C002.256	140,408	BA59C002.256	305,956
BA21C512.256	215,453	BA61C512.256	331,185
BA22C256.256	215,452	BA62C256.256	331,184
BA23C128.256	215,448	BA63C128.256	331,180
BA24C064.256	215,432	BA64C064.256	331,164
BA25C032.256	215,368	BA65C032.256	331,100
BA26C016.256	215,112	BA66C016.256	330,844
BA27C008.256	214,144	BA67C008.256	329,820
BA28C004.256	211,644	BA68C004.256	325,724
BA29C002.256	209,272	BA69C002.256	309,348
BA31C512.256	290,773	BA71C512.256	334,641
BA32C256.256	290,772	BA72C256.256	334,640
BA33C128.256	290,768	BA73C128.256	334,636
BA34C064.256	290,752	BA74C064.256	334,620
BA35C032.256	290,688	BA75C032.256	334,556
BA36C016.256	290,432	BA76C016.256	334,300
BA37C008.256	289,408	BA77C008.256	333,276
BA38C004.256	285,320	BA78C004.256	329,180
BA39C002.256	270,460	BA79C002.256	312,800

Table A.3.8 For Baboon

Compression Planes Results
Image: Baboon.bin at Block size = 512

BA01C512.512	30,937	BA41C512.512	320,569
BA02C256.512	30,936	BA42C256.512	320,568
BA03C128.512	30,932	BA43C128.512	320,564
BA04C064.512	30,920	BA44C064.512	320,548
BA05C032.512	30,916	BA45C032.512	320,484
BA06C016.512	31,080	BA46C016.512	320,228
BA07C008.512	32,296	BA47C008.512	319,204
BA08C004.512	39,768	BA48C004.512	315,108
BA09C002.512	79,356	BA49C002.512	298,752
BA11C512.512	122,553	BA51C512.512	327,797
BA12C256.512	122,552	BA52C256.512	327,796
BA13C128.512	122,548	BA53C128.512	327,792
BA14C064.512	122,532	BA54C064.512	327,776
BA15C032.512	122,468	BA55C032.512	327,712
BA16C016.512	122,316	BA56C016.512	327,456
BA17C008.512	122,284	BA57C008.512	326,432
BA18C004.512	124,004	BA58C004.512	322,336
BA19C002.512	140,408	BA59C002.512	305,956
BA21C512.512	215,453	BA61C512.512	331,185
BA22C256.512	215,452	BA62C256.512	331,184
BA23C128.512	215,448	BA63C128.512	331,180
BA24C064.512	215,432	BA64C064.512	331,164
BA25C032.512	215,368	BA65C032.512	331,100
BA26C016.512	215,112	BA66C016.512	330,844
BA27C008.512	214,144	BA67C008.512	329,820
BA28C004.512	211,644	BA68C004.512	325,724
BA29C002.512	209,272	BA69C002.512	309,348
BA31C512.512	290,773	BA71C512.512	334,641
BA32C256.512	290,772	BA72C256.512	334,640
BA33C128.512	290,768	BA73C128.512	334,636
BA34C064.512	290,752	BA74C064.512	334,620
BA35C032.512	290,688	BA75C032.512	334,556
BA36C016.512	290,432	BA76C016.512	334,300
BA37C008.512	289,408	BA77C008.512	333,276
BA38C004.512	285,320	BA78C004.512	329,180
BA39C002.512	270,460	BA79C002.512	312,800

Table A.3.9 For Baboon

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 002

BI01C512.002	73	BI41C512.002	130,049
BI02C256.002	72	BI42C256.002	130,048
BI03C128.002	76	BI43C128.002	130,044
BI04C064.002	116	BI44C064.002	130,028
BI05C032.002	300	BI45C032.002	129,964
BI06C016.002	1,060	BI46C016.002	129,728
BI07C008.002	4,124	BI47C008.002	129,312
BI08C004.002	16,404	BI48C004.002	130,388
BI09C002.002	65,548	BI49C002.002	146,752
BI11C512.002	645	BI51C512.002	213,849
BI12C256.002	644	BI52C256.002	213,848
BI13C128.002	640	BI53C128.002	213,844
BI14C064.002	648	BI54C064.002	213,828
BI15C032.002	780	BI55C032.002	213,764
BI16C016.002	1,472	BI56C016.002	213,508
BI17C008.002	4,456	BI57C008.002	212,492
BI18C004.002	16,636	BI58C004.002	209,048
BI19C002.002	65,668	BI59C002.002	204,964
BI21C512.002	22,821	BI61C512.002	293,521
BI22C256.002	22,820	BI62C256.002	293,520
BI23C128.002	22,816	BI63C128.002	293,516
BI24C064.002	22,800	BI64C064.002	293,500
BI25C032.002	22,804	BI65C032.002	293,436
BI26C016.002	22,964	BI66C016.002	293,180
BI27C008.002	24,412	BI67C008.002	292,160
BI28C004.002	32,996	BI68C004.002	288,160
BI29C002.002	75,352	BI69C002.002	273,136
BI31C512.002	75,833	BI71C512.002	283,153
BI32C256.002	75,832	BI72C256.002	283,152
BI33C128.002	75,828	BI73C128.002	283,148
BI34C064.002	75,812	BI74C064.002	283,132
BI35C032.002	75,756	BI75C032.002	283,068
BI36C016.002	75,704	BI76C016.002	282,812
BI37C008.002	76,088	BI77C008.002	281,792
BI38C004.002	80,512	BI78C004.002	277,832
BI39C002.002	109,424	BI79C002.002	263,572

Table A.4.1 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 004

BI01C512.004	73	BI41C512.004	135,449
BI02C256.004	72	BI42C256.004	135,448
BI03C128.004	76	BI43C128.004	135,444
BI04C064.004	116	BI44C064.004	135,428
BI05C032.004	300	BI45C032.004	135,364
BI06C016.004	1,060	BI46C016.004	135,128
BI07C008.004	4,124	BI47C008.004	134,680
BI08C004.004	16,404	BI48C004.004	135,592
BI09C002.004	65,548	BI49C002.004	151,064
BI11C512.004	673	BI51C512.004	222,977
BI12C256.004	672	BI52C256.004	222,976
BI13C128.004	668	BI53C128.004	222,972
BI14C064.004	676	BI54C064.004	222,956
BI15C032.004	812	BI55C032.004	222,892
BI16C016.004	1,500	BI56C016.004	222,636
BI17C008.004	4,480	BI57C008.004	221,620
BI18C004.004	16,656	BI58C004.004	218,132
BI19C002.004	65,680	BI59C002.004	212,712
BI21C512.004	25,549	BI61C512.004	299,481
BI22C256.004	25,548	BI62C256.004	299,480
BI23C128.004	25,544	BI63C128.004	299,476
BI24C064.004	25,528	BI64C064.004	299,460
BI25C032.004	25,528	BI65C032.004	299,396
BI26C016.004	25,680	BI66C016.004	299,140
BI27C008.004	27,064	BI67C008.004	298,120
BI28C004.004	35,384	BI68C004.004	294,120
BI29C002.004	76,912	BI69C002.004	279,020
BI31C512.004	79,629	BI71C512.004	281,885
BI32C256.004	79,628	BI72C256.004	281,884
BI33C128.004	79,624	BI73C128.004	281,880
BI34C064.004	79,608	BI74C064.004	281,864
BI35C032.004	79,552	BI75C032.004	281,800
BI36C016.004	79,500	BI76C016.004	281,544
BI37C008.004	79,864	BI77C008.004	280,524
BI38C004.004	84,092	BI78C004.004	276,564
BI39C002.004	112,324	BI79C002.004	262,452

Table A.4.2 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 008

BI01C512.008	73	BI41C512.008	139,545
BI02C256.008	72	BI42C256.008	139,544
BI03C128.008	76	BI43C128.008	139,540
BI04C064.008	116	BI44C064.008	139,524
BI05C032.008	300	BI45C032.008	139,460
BI06C016.008	1,060	BI46C016.008	139,224
BI07C008.008	4,124	BI47C008.008	138,764
BI08C004.008	16,404	BI48C004.008	139,576
BI09C002.008	65,548	BI49C002.008	154,292
BI11C512.008	801	BI51C512.008	228,193
BI12C256.008	800	BI52C256.008	228,192
BI13C128.008	796	BI53C128.008	228,188
BI14C064.008	804	BI54C064.008	228,172
BI15C032.008	920	BI55C032.008	228,108
BI16C016.008	1,588	BI56C016.008	227,852
BI17C008.008	4,548	BI57C008.008	226,836
BI18C004.008	16,704	BI58C004.008	223,304
BI19C002.008	65,704	BI59C002.008	217,184
BI21C512.008	26,641	BI61C512.008	302,333
BI22C256.008	26,640	BI62C256.008	302,332
BI23C128.008	26,636	BI63C128.008	302,328
BI24C064.008	26,620	BI64C064.008	302,312
BI25C032.008	26,620	BI65C032.008	302,248
BI26C016.008	26,764	BI66C016.008	301,992
BI27C008.008	28,124	BI67C008.008	300,972
BI28C004.008	36,336	BI68C004.008	296,972
BI29C002.008	77,596	BI69C002.008	281,848
BI31C512.008	82,001	BI71C512.008	280,445
BI32C256.008	82,000	BI72C256.008	280,444
BI33C128.008	81,996	BI73C128.008	280,440
BI34C064.008	81,980	BI74C064.008	280,424
BI35C032.008	81,924	BI75C032.008	280,360
BI36C016.008	81,868	BI76C016.008	280,104
BI37C008.008	82,208	BI77C008.008	279,084
BI38C004.008	86,400	BI78C004.008	275,124
BI39C002.008	114,100	BI79C002.008	261,056

Table A.4.3 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 016

BI01C512.016	73	BI41C512.016	140,933
BI02C256.016	72	BI42C256.016	140,932
BI03C128.016	76	BI43C128.016	140,928
BI04C064.016	116	BI44C064.016	140,912
BI05C032.016	300	BI45C032.016	140,848
BI06C016.016	1,060	BI46C016.016	140,612
BI07C008.016	4,124	BI47C008.016	140,152
BI08C004.016	16,404	BI48C004.016	140,940
BI09C002.016	65,548	BI49C002.016	155,456
BI11C512.016	821	BI51C512.016	229,561
BI12C256.016	820	BI52C256.016	229,560
BI13C128.016	816	BI53C128.016	229,556
BI14C064.016	824	BI54C064.016	229,540
BI15C032.016	944	BI55C032.016	229,476
BI16C016.016	1,620	BI56C016.016	229,220
BI17C008.016	4,572	BI57C008.016	228,204
BI18C004.016	16,720	BI58C004.016	224,660
BI19C002.016	65,712	BI59C002.016	218,244
BI21C512.016	27,045	BI61C512.016	302,961
BI22C256.016	27,044	BI62C256.016	302,960
BI23C128.016	27,040	BI63C128.016	302,956
BI24C064.016	27,024	BI64C064.016	302,940
BI25C032.016	27,028	BI65C032.016	302,876
BI26C016.016	27,188	BI66C016.016	302,620
BI27C008.016	28,564	BI67C008.016	301,600
BI28C004.016	36,780	BI68C004.016	297,600
BI29C002.016	77,916	BI69C002.016	282,476
BI31C512.016	83,609	BI71C512.016	281,133
BI32C256.016	83,608	BI72C256.016	281,132
BI33C128.016	83,604	BI73C128.016	281,128
BI34C064.016	83,588	BI74C064.016	281,112
BI35C032.016	83,532	BI75C032.016	281,048
BI36C016.016	83,476	BI76C016.016	280,792
BI37C008.016	83,796	BI77C008.016	279,772
BI38C004.016	87,944	BI78C004.016	275,804
BI39C002.016	115,408	BI79C002.016	261,664

Table A.4.4 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 032

BI01C512.032	73	BI41C512.032	141,789
BI02C256.032	72	BI42C256.032	141,788
BI03C128.032	76	BI43C128.032	141,784
BI04C064.032	116	BI44C064.032	141,768
BI05C032.032	300	BI45C032.032	141,704
BI06C016.032	1,060	BI46C016.032	141,468
BI07C008.032	4,124	BI47C008.032	141,012
BI08C004.032	16,404	BI48C004.032	141,796
BI09C002.032	65,548	BI49C002.032	156,108
BI11C512.032	941	BI51C512.032	229,869
BI12C256.032	940	BI52C256.032	229,868
BI13C128.032	936	BI53C128.032	229,864
BI14C064.032	944	BI54C064.032	229,848
BI15C032.032	1,056	BI55C032.032	229,784
BI16C016.032	1,712	BI56C016.032	229,528
BI17C008.032	4,644	BI57C008.032	228,516
BI18C004.032	16,768	BI58C004.032	224,976
BI19C002.032	65,736	BI59C002.032	218,556
BI21C512.032	28,357	BI61C512.032	303,389
BI22C256.032	28,356	BI62C256.032	303,388
BI23C128.032	28,352	BI63C128.032	303,384
BI24C064.032	28,336	BI64C064.032	303,368
BI25C032.032	28,340	BI65C032.032	303,304
BI26C016.032	28,496	BI66C016.032	303,048
BI27C008.032	29,864	BI67C008.032	302,028
BI28C004.032	37,956	BI68C004.032	298,028
BI29C002.032	78,732	BI69C002.032	282,884
BI31C512.032	84,281	BI71C512.032	282,285
BI32C256.032	84,280	BI72C256.032	282,284
BI33C128.032	84,276	BI73C128.032	282,280
BI34C064.032	84,260	BI74C064.032	282,264
BI35C032.032	84,204	BI75C032.032	282,200
BI36C016.032	84,144	BI76C016.032	281,944
BI37C008.032	84,460	BI77C008.032	280,924
BI38C004.032	88,584	BI78C004.032	276,944
BI39C002.032	115,912	BI79C002.032	262,584

Table A.4.5 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 064

BI01C512.064	73	BI41C512.064	142,489
BI02C256.064	72	BI42C256.064	142,488
BI03C128.064	76	BI43C128.064	142,484
BI04C064.064	116	BI44C064.064	142,468
BI05C032.064	300	BI45C032.064	142,404
BI06C016.064	1,060	BI46C016.064	142,168
BI07C008.064	4,124	BI47C008.064	141,712
BI08C004.064	16,404	BI48C004.064	142,500
BI09C002.064	65,548	BI49C002.064	156,676
BI11C512.064	1,197	BI51C512.064	229,965
BI12C256.064	1,196	BI52C256.064	229,964
BI13C128.064	1,192	BI53C128.064	229,960
BI14C064.064	1,196	BI54C064.064	229,944
BI15C032.064	1,304	BI55C032.064	229,880
BI16C016.064	1,936	BI56C016.064	229,624
BI17C008.064	4,820	BI57C008.064	228,608
BI18C004.064	16,888	BI58C004.064	225,064
BI19C002.064	65,796	BI59C002.064	218,672
BI21C512.064	28,909	BI61C512.064	303,561
BI22C256.064	28,908	BI62C256.064	303,560
BI23C128.064	28,904	BI63C128.064	303,556
BI24C064.064	28,888	BI64C064.064	303,540
BI25C032.064	28,892	BI65C032.064	303,476
BI26C016.064	29,048	BI66C016.064	303,220
BI27C008.064	30,396	BI67C008.064	302,200
BI28C004.064	38,440	BI68C004.064	298,200
BI29C002.064	79,080	BI69C002.064	283,052
BI31C512.064	84,209	BI71C512.064	282,793
BI32C256.064	84,208	BI72C256.064	282,792
BI33C128.064	84,204	BI73C128.064	282,788
BI34C064.064	84,188	BI74C064.064	282,772
BI35C032.064	84,132	BI75C032.064	282,708
BI36C016.064	84,076	BI76C016.064	282,452
BI37C008.064	84,396	BI77C008.064	281,432
BI38C004.064	88,512	BI78C004.064	277,432
BI39C002.064	115,828	BI79C002.064	262,980

Table A.4.6 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 128

BI01C512.128	73	BI41C512.128	142,069
BI02C256.128	72	BI42C256.128	142,068
BI03C128.128	76	BI43C128.128	142,064
BI04C064.128	116	BI44C064.128	142,048
BI05C032.128	300	BI45C032.128	141,984
BI06C016.128	1,060	BI46C016.128	141,748
BI07C008.128	4,124	BI47C008.128	141,292
BI08C004.128	16,404	BI48C004.128	142,080
BI09C002.128	65,548	BI49C002.128	156,396
BI11C512.128	1,453	BI51C512.128	229,789
BI12C256.128	1,452	BI52C256.128	229,788
BI13C128.128	1,448	BI53C128.128	229,784
BI14C064.128	1,452	BI54C064.128	229,768
BI15C032.128	1,556	BI55C032.128	229,704
BI16C016.128	2,172	BI56C016.128	229,448
BI17C008.128	5,020	BI57C008.128	228,432
BI18C004.128	17,036	BI58C004.128	224,888
BI19C002.128	65,880	BI59C002.128	218,492
BI21C512.128	29,117	BI61C512.128	303,493
BI22C256.128	29,116	BI62C256.128	303,492
BI23C128.128	29,112	BI63C128.128	303,488
BI24C064.128	29,096	BI64C064.128	303,472
BI25C032.128	29,100	BI65C032.128	303,408
BI26C016.128	29,256	BI66C016.128	303,152
BI27C008.128	30,616	BI67C008.128	302,132
BI28C004.128	38,728	BI68C004.128	298,132
BI29C002.128	79,428	BI69C002.128	282,980
BI31C512.128	84,333	BI71C512.128	283,029
BI32C256.128	84,332	BI72C256.128	283,028
BI33C128.128	84,328	BI73C128.128	283,024
BI34C064.128	84,312	BI74C064.128	283,008
BI35C032.128	84,256	BI75C032.128	282,944
BI36C016.128	84,200	BI76C016.128	282,688
BI37C008.128	84,520	BI77C008.128	281,668
BI38C004.128	88,660	BI78C004.128	277,668
BI39C002.128	116,052	BI79C002.128	263,184

Table A.4.7 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 256

BI01C512.256	73	BI41C512.256	142,069
BI02C256.256	72	BI42C256.256	142,068
BI03C128.256	76	BI43C128.256	142,064
BI04C064.256	116	BI44C064.256	142,048
BI05C032.256	300	BI45C032.256	141,984
BI06C016.256	1,060	BI46C016.256	141,748
BI07C008.256	4,124	BI47C008.256	141,292
BI08C004.256	16,404	BI48C004.256	142,080
BI09C002.256	65,548	BI49C002.256	156,396
BI11C512.256	1,453	BI51C512.256	229,789
BI12C256.256	1,452	BI52C256.256	229,788
BI13C128.256	1,448	BI53C128.256	229,784
BI14C064.256	1,452	BI54C064.256	229,768
BI15C032.256	1,556	BI55C032.256	229,704
BI16C016.256	2,172	BI56C016.256	229,448
BI17C008.256	5,020	BI57C008.256	228,432
BI18C004.256	17,036	BI58C004.256	224,888
BI19C002.256	65,880	BI59C002.256	218,492
BI21C512.256	29,117	BI61C512.256	303,493
BI22C256.256	29,116	BI62C256.256	303,492
BI23C128.256	29,112	BI63C128.256	303,488
BI24C064.256	29,096	BI64C064.256	303,472
BI25C032.256	29,100	BI65C032.256	303,408
BI26C016.256	29,256	BI66C016.256	303,152
BI27C008.256	30,616	BI67C008.256	302,132
BI28C004.256	38,728	BI68C004.256	298,132
BI29C002.256	79,428	BI69C002.256	282,980
BI31C512.256	84,333	BI71C512.256	283,029
BI32C256.256	84,332	BI72C256.256	283,028
BI33C128.256	84,328	BI73C128.256	283,024
BI34C064.256	84,312	BI74C064.256	283,008
BI35C032.256	84,256	BI75C032.256	282,944
BI36C016.256	84,200	BI76C016.256	282,688
BI37C008.256	84,520	BI77C008.256	281,668
BI38C004.256	88,660	BI78C004.256	277,668
BI39C002.256	116,052	BI79C002.256	263,184

Table A.4.8 For Bill

Compressed Planes Results
Image: Bill.bin at Entropy Block size = 512

BI01C512.512	73	BI41C512.512	142,069
BI02C256.512	72	BI42C256.512	142,068
BI03C128.512	76	BI43C128.512	142,064
BI04C064.512	116	BI44C064.512	142,048
BI05C032.512	300	BI45C032.512	141,984
BI06C016.512	1,060	BI46C016.512	141,748
BI07C008.512	4,124	BI47C008.512	141,292
BI08C004.512	16,404	BI48C004.512	142,080
BI09C002.512	65,548	BI49C002.512	156,396
BI11C512.512	1,453	BI51C512.512	229,789
BI12C256.512	1,452	BI52C256.512	229,788
BI13C128.512	1,448	BI53C128.512	229,784
BI14C064.512	1,452	BI54C064.512	229,768
BI15C032.512	1,556	BI55C032.512	229,704
BI16C016.512	2,172	BI56C016.512	229,448
BI17C008.512	5,020	BI57C008.512	228,432
BI18C004.512	17,036	BI58C004.512	224,888
BI19C002.512	65,880	BI59C002.512	218,492
BI21C512.512	29,117	BI61C512.512	303,493
BI22C256.512	29,116	BI62C256.512	303,492
BI23C128.512	29,112	BI63C128.512	303,488
BI24C064.512	29,096	BI64C064.512	303,472
BI25C032.512	29,100	BI65C032.512	303,408
BI26C016.512	29,256	BI66C016.512	303,152
BI27C008.512	30,616	BI67C008.512	302,132
BI28C004.512	38,728	BI68C004.512	298,132
BI29C002.512	79,428	BI69C002.512	282,980
BI31C512.512	84,333	BI71C512.512	283,029
BI32C256.512	84,332	BI72C256.512	283,028
BI33C128.512	84,328	BI73C128.512	283,024
BI34C064.512	84,312	BI74C064.512	283,008
BI35C032.512	84,256	BI75C032.512	282,944
BI36C016.512	84,200	BI76C016.512	282,688
BI37C008.512	84,520	BI77C008.512	281,668
BI38C004.512	88,660	BI78C004.512	277,668
BI39C002.512	116,052	BI79C002.512	263,184

Table A.4.9 For Bill

Compressed Planes Results
Image: Cat.bin at Entropy block size = 002

CA01C512.002	85	CA41C512.002	250,861
CA02C256.002	84	CA42C256.002	250,860
CA03C128.002	92	CA43C128.002	250,856
CA04C064.002	132	CA44C064.002	250,840
CA05C032.002	316	CA45C032.002	250,776
CA06C016.002	1,076	CA46C016.002	250,528
CA07C008.002	4,140	CA47C008.002	249,592
CA08C004.002	16,416	CA48C004.002	246,396
CA09C002.002	65,552	CA49C002.002	237,988
CA11C512.002	12,357	CA51C512.002	287,217
CA12C256.002	12,356	CA52C256.002	287,216
CA13C128.002	12,352	CA53C128.002	287,212
CA14C064.002	12,336	CA54C064.002	287,196
CA15C032.002	12,324	CA55C032.002	287,132
CA16C016.002	12,524	CA56C016.002	286,884
CA17C008.002	14,312	CA57C008.002	285,932
CA18C004.002	24,180	CA58C004.002	282,456
CA19C002.002	69,892	CA59C002.002	270,020
CA21C512.002	88,049	CA61C512.002	303,789
CA22C256.002	88,048	CA62C256.002	303,788
CA23C128.002	88,044	CA63C128.002	303,784
CA24C064.002	88,028	CA64C064.002	303,768
CA25C032.002	87,964	CA65C032.002	303,704
CA26C016.002	87,836	CA66C016.002	303,456
CA27C008.002	87,836	CA67C008.002	302,508
CA28C004.002	90,420	CA68C004.002	299,020
CA29C002.002	113,796	CA69C002.002	286,064
CA31C512.002	183,509	CA71C512.002	300,817
CA32C256.002	183,508	CA72C256.002	300,816
CA33C128.002	183,504	CA73C128.002	300,812
CA34C064.002	183,488	CA74C064.002	300,796
CA35C032.002	183,424	CA75C032.002	300,732
CA36C016.002	183,188	CA76C016.002	300,484
CA37C008.002	182,460	CA77C008.002	299,540
CA38C004.002	181,140	CA78C004.002	296,060
CA39C002.002	184,368	CA79C002.002	283,160

Table A.5.1 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 004

CA01C512.004	145	CA41C512.004	258,201
CA02C256.004	144	CA42C256.004	258,200
CA03C128.004	148	CA43C128.004	258,196
CA04C064.004	180	CA44C064.004	258,180
CA05C032.004	356	CA45C032.004	258,116
CA06C016.004	1,108	CA46C016.004	257,868
CA07C008.004	4,164	CA47C008.004	256,928
CA08C004.004	16,432	CA48C004.004	253,668
CA09C002.004	65,560	CA49C002.004	244,472
CA11C512.004	12,353	CA51C512.004	292,909
CA12C256.004	12,352	CA52C256.004	292,908
CA13C128.004	12,348	CA53C128.004	292,904
CA14C064.004	12,332	CA54C064.004	292,888
CA15C032.004	12,320	CA55C032.004	292,824
CA16C016.004	12,528	CA56C016.004	292,576
CA17C008.004	14,336	CA57C008.004	291,624
CA18C004.004	24,208	CA58C004.004	288,144
CA19C002.004	69,916	CA59C002.004	275,520
CA21C512.004	90,617	CA61C512.004	306,005
CA22C256.004	90,616	CA62C256.004	306,004
CA23C128.004	90,612	CA63C128.004	306,000
CA24C064.004	90,596	CA64C064.004	305,984
CA25C032.004	90,532	CA65C032.004	305,920
CA26C016.004	90,404	CA66C016.004	305,672
CA27C008.004	90,428	CA67C008.004	304,724
CA28C004.004	92,944	CA68C004.004	301,240
CA29C002.004	115,732	CA69C002.004	288,280
CA31C512.004	189,729	CA71C512.004	298,945
CA32C256.004	189,728	CA72C256.004	298,944
CA33C128.004	189,724	CA73C128.004	298,940
CA34C064.004	189,708	CA74C064.004	298,924
CA35C032.004	189,644	CA75C032.004	298,860
CA36C016.004	189,408	CA76C016.004	298,612
CA37C008.004	188,672	CA77C008.004	297,668
CA38C004.004	187,236	CA78C004.004	294,188
CA39C002.004	189,620	CA79C002.004	281,268

Table A.5.2 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 008

CA01C512.008	113	CA41C512.008	261,065
CA02C256.008	112	CA42C256.008	261,064
CA03C128.008	120	CA43C128.008	261,060
CA04C064.008	156	CA44C064.008	261,044
CA05C032.008	336	CA45C032.008	260,980
CA06C016.008	1,092	CA46C016.008	260,732
CA07C008.008	4,152	CA47C008.008	259,800
CA08C004.008	16,424	CA48C004.008	256,528
CA09C002.008	65,556	CA49C002.008	247,160
CA11C512.008	12,325	CA51C512.008	295,109
CA12C256.008	12,324	CA52C256.008	295,108
CA13C128.008	12,320	CA53C128.008	295,104
CA14C064.008	12,304	CA54C064.008	295,088
CA15C032.008	12,292	CA55C032.008	295,024
CA16C016.008	12,500	CA56C016.008	294,776
CA17C008.008	14,304	CA57C008.008	293,824
CA18C004.008	24,180	CA58C004.008	290,344
CA19C002.008	69,896	CA59C002.008	277,668
CA21C512.008	91,693	CA61C512.008	306,941
CA22C256.008	91,692	CA62C256.008	306,940
CA23C128.008	91,688	CA63C128.008	306,936
CA24C064.008	91,672	CA64C064.008	306,920
CA25C032.008	91,608	CA65C032.008	306,856
CA26C016.008	91,476	CA66C016.008	306,608
CA27C008.008	91,492	CA67C008.008	305,660
CA28C004.008	94,004	CA68C004.008	302,176
CA29C002.008	116,564	CA69C002.008	289,204
CA31C512.008	191,849	CA71C512.008	298,225
CA32C256.008	191,848	CA72C256.008	298,224
CA33C128.008	191,844	CA73C128.008	298,220
CA34C064.008	191,828	CA74C064.008	298,204
CA35C032.008	191,764	CA75C032.008	298,140
CA36C016.008	191,528	CA76C016.008	297,892
CA37C008.008	190,780	CA77C008.008	296,948
CA38C004.008	189,284	CA78C004.008	293,468
CA39C002.008	191,448	CA79C002.008	280,548

Table A.5.3 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 016

CA01C512.016	145	CA41C512.016	262,325
CA02C256.016	144	CA42C256.016	262,324
CA03C128.016	148	CA43C128.016	262,320
CA04C064.016	180	CA44C064.016	262,304
CA05C032.016	356	CA45C032.016	262,240
CA06C016.016	1,108	CA46C016.016	261,992
CA07C008.016	4,164	CA47C008.016	261,060
CA08C004.016	16,432	CA48C004.016	257,796
CA09C002.016	65,560	CA49C002.016	248,408
CA11C512.016	12,453	CA51C512.016	296,117
CA12C256.016	12,452	CA52C256.016	296,116
CA13C128.016	12,448	CA53C128.016	296,112
CA14C064.016	12,432	CA54C064.016	296,096
CA15C032.016	12,424	CA55C032.016	296,032
CA16C016.016	12,640	CA56C016.016	295,784
CA17C008.016	14,432	CA57C008.016	294,832
CA18C004.016	24,260	CA58C004.016	291,352
CA19C002.016	69,944	CA59C002.016	278,656
CA21C512.016	92,081	CA61C512.016	307,557
CA22C256.016	92,080	CA62C256.016	307,556
CA23C128.016	92,076	CA63C128.016	307,552
CA24C064.016	92,060	CA64C064.016	307,536
CA25C032.016	91,996	CA65C032.016	307,472
CA26C016.016	91,864	CA66C016.016	307,224
CA27C008.016	91,868	CA67C008.016	306,276
CA28C004.016	94,344	CA68C004.016	302,792
CA29C002.016	116,856	CA69C002.016	289,800
CA31C512.016	192,669	CA71C512.016	298,065
CA32C256.016	192,668	CA72C256.016	298,064
CA33C128.016	192,664	CA73C128.016	298,060
CA34C064.016	192,648	CA74C064.016	298,044
CA35C032.016	192,584	CA75C032.016	297,980
CA36C016.016	192,348	CA76C016.016	297,732
CA37C008.016	191,604	CA77C008.016	296,788
CA38C004.016	190,080	CA78C004.016	293,308
CA39C002.016	192,100	CA79C002.016	280,400

Table A.5.4 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 032

CA01C512.032	137	CA41C512.032	262,829
CA02C256.032	136	CA42C256.032	262,828
CA03C128.032	144	CA43C128.032	262,824
CA04C064.032	180	CA44C064.032	262,808
CA05C032.032	356	CA45C032.032	262,744
CA06C016.032	1,108	CA46C016.032	262,496
CA07C008.032	4,164	CA47C008.032	261,560
CA08C004.032	16,432	CA48C004.032	258,272
CA09C002.032	65,560	CA49C002.032	248,856
CA11C512.032	12,429	CA51C512.032	296,157
CA12C256.032	12,428	CA52C256.032	296,156
CA13C128.032	12,424	CA53C128.032	296,152
CA14C064.032	12,408	CA54C064.032	296,136
CA15C032.032	12,396	CA55C032.032	296,072
CA16C016.032	12,604	CA56C016.032	295,824
CA17C008.032	14,404	CA57C008.032	294,872
CA18C004.032	24,256	CA58C004.032	291,388
CA19C002.032	69,952	CA59C002.032	278,716
CA21C512.032	92,281	CA61C512.032	308,337
CA22C256.032	92,280	CA62C256.032	308,336
CA23C128.032	92,276	CA63C128.032	308,332
CA24C064.032	92,260	CA64C064.032	308,316
CA25C032.032	92,196	CA65C032.032	308,252
CA26C016.032	92,068	CA66C016.032	308,004
CA27C008.032	92,068	CA67C008.032	307,056
CA28C004.032	94,548	CA68C004.032	303,560
CA29C002.032	117,028	CA69C002.032	290,472
CA31C512.032	193,329	CA71C512.032	298,173
CA32C256.032	193,328	CA72C256.032	298,172
CA33C128.032	193,324	CA73C128.032	298,168
CA34C064.032	193,308	CA74C064.032	298,152
CA35C032.032	193,244	CA75C032.032	298,088
CA36C016.032	193,008	CA76C016.032	297,840
CA37C008.032	192,268	CA77C008.032	296,896
CA38C004.032	190,776	CA78C004.032	293,400
CA39C002.032	192,752	CA79C002.032	280,400

Table A.5.5 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 064

CA01C512.064	193	CA41C512.064	263,205
CA02C256.064	192	CA42C256.064	263,204
CA03C128.064	196	CA43C128.064	263,200
CA04C064.064	228	CA44C064.064	263,184
CA05C032.064	400	CA45C032.064	263,120
CA06C016.064	1,148	CA46C016.064	262,872
CA07C008.064	4,196	CA47C008.064	261,940
CA08C004.064	16,456	CA48C004.064	258,660
CA09C002.064	65,576	CA49C002.064	249,176
CA11C512.064	12,493	CA51C512.064	296,245
CA12C256.064	12,492	CA52C256.064	296,244
CA13C128.064	12,488	CA53C128.064	296,240
CA14C064.064	12,472	CA54C064.064	296,224
CA15C032.064	12,460	CA55C032.064	296,160
CA16C016.064	12,668	CA56C016.064	295,912
CA17C008.064	14,448	CA57C008.064	294,960
CA18C004.064	24,288	CA58C004.064	291,472
CA19C002.064	69,968	CA59C002.064	278,780
CA21C512.064	92,577	CA61C512.064	308,553
CA22C256.064	92,576	CA62C256.064	308,552
CA23C128.064	92,572	CA63C128.064	308,548
CA24C064.064	92,556	CA64C064.064	308,532
CA25C032.064	92,492	CA65C032.064	308,468
CA26C016.064	92,364	CA66C016.064	308,220
CA27C008.064	92,356	CA67C008.064	307,272
CA28C004.064	94,792	CA68C004.064	303,764
CA29C002.064	117,180	CA69C002.064	290,588
CA31C512.064	193,865	CA71C512.064	298,569
CA32C256.064	193,864	CA72C256.064	298,568
CA33C128.064	193,860	CA73C128.064	298,564
CA34C064.064	193,844	CA74C064.064	298,548
CA35C032.064	193,780	CA75C032.064	298,484
CA36C016.064	193,544	CA76C016.064	298,236
CA37C008.064	192,800	CA77C008.064	297,292
CA38C004.064	191,292	CA78C004.064	293,792
CA39C002.064	193,236	CA79C002.064	280,784

Table A.5.6 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 128

CA01C512.128	265	CA41C512.128	263,657
CA02C256.128	264	CA42C256.128	263,656
CA03C128.128	264	CA43C128.128	263,652
CA04C064.128	292	CA44C064.128	263,636
CA05C032.128	456	CA45C032.128	263,572
CA06C016.128	1,196	CA46C016.128	263,324
CA07C008.128	4,232	CA47C008.128	262,388
CA08C004.128	16,480	CA48C004.128	259,112
CA09C002.128	65,588	CA49C002.128	249,540
CA11C512.128	12,745	CA51C512.128	296,805
CA12C256.128	12,744	CA52C256.128	296,804
CA13C128.128	12,740	CA53C128.128	296,800
CA14C064.128	12,724	CA54C064.128	296,784
CA15C032.128	12,712	CA55C032.128	296,720
CA16C016.128	12,916	CA56C016.128	296,472
CA17C008.128	14,684	CA57C008.128	295,520
CA18C004.128	24,480	CA58C004.128	292,032
CA19C002.128	70,076	CA59C002.128	279,288
CA21C512.128	93,209	CA61C512.128	310,025
CA22C256.128	93,208	CA62C256.128	310,024
CA23C128.128	93,204	CA63C128.128	310,020
CA24C064.128	93,188	CA64C064.128	310,004
CA25C032.128	93,124	CA65C032.128	309,940
CA26C016.128	92,992	CA66C016.128	309,692
CA27C008.128	92,972	CA67C008.128	308,732
CA28C004.128	95,388	CA68C004.128	305,148
CA29C002.128	117,544	CA69C002.128	291,636
CA31C512.128	194,365	CA71C512.128	300,433
CA32C256.128	194,364	CA72C256.128	300,432
CA33C128.128	194,360	CA73C128.128	300,428
CA34C064.128	194,344	CA74C064.128	300,412
CA35C032.128	194,280	CA75C032.128	300,348
CA36C016.128	194,040	CA76C016.128	300,100
CA37C008.128	193,284	CA77C008.128	299,144
CA38C004.128	191,744	CA78C004.128	295,564
CA39C002.128	193,580	CA79C002.128	282,188

Table A.5.7 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 256

CA01C512.256	217	CA41C512.256	264,133
CA02C256.256	216	CA42C256.256	264,132
CA03C128.256	220	CA43C128.256	264,128
CA04C064.256	252	CA44C064.256	264,112
CA05C032.256	420	CA45C032.256	264,048
CA06C016.256	1,164	CA46C016.256	263,800
CA07C008.256	4,208	CA47C008.256	262,864
CA08C004.256	16,464	CA48C004.256	259,584
CA09C002.256	65,580	CA49C002.256	250,012
CA11C512.256	12,589	CA51C512.256	296,769
CA12C256.256	12,588	CA52C256.256	296,768
CA13C128.256	12,584	CA53C128.256	296,764
CA14C064.256	12,568	CA54C064.256	296,748
CA15C032.256	12,560	CA55C032.256	296,684
CA16C016.256	12,768	CA56C016.256	296,436
CA17C008.256	14,540	CA57C008.256	295,484
CA18C004.256	24,352	CA58C004.256	292,004
CA19C002.256	70,004	CA59C002.256	279,312
CA21C512.256	93,641	CA61C512.256	307,721
CA22C256.256	93,640	CA62C256.256	307,720
CA23C128.256	93,636	CA63C128.256	307,716
CA24C064.256	93,620	CA64C064.256	307,700
CA25C032.256	93,556	CA65C032.256	307,636
CA26C016.256	93,424	CA66C016.256	307,388
CA27C008.256	93,408	CA67C008.256	306,440
CA28C004.256	95,776	CA68C004.256	302,956
CA29C002.256	117,792	CA69C002.256	289,996
CA31C512.256	195,801	CA71C512.256	295,301
CA32C256.256	195,800	CA72C256.256	295,300
CA33C128.256	195,796	CA73C128.256	295,296
CA34C064.256	195,780	CA74C064.256	295,280
CA35C032.256	195,716	CA75C032.256	295,216
CA36C016.256	195,476	CA76C016.256	294,968
CA37C008.256	194,724	CA77C008.256	294,024
CA38C004.256	193,100	CA78C004.256	290,548
CA39C002.256	194,576	CA79C002.256	277,872

Table A.5.8 For Cat

Compressed Planes Results
Image: Cat.bin at Entropy block size = 512

CA01C512.512	217	CA41C512.512	264,133
CA02C256.512	216	CA42C256.512	264,132
CA03C128.512	220	CA43C128.512	264,128
CA04C064.512	252	CA44C064.512	264,112
CA05C032.512	420	CA45C032.512	264,048
CA06C016.512	1,164	CA46C016.512	263,800
CA07C008.512	4,208	CA47C008.512	262,864
CA08C004.512	16,464	CA48C004.512	259,584
CA09C002.512	65,580	CA49C002.512	250,012
CA11C512.512	12,589	CA51C512.512	296,769
CA12C256.512	12,588	CA52C256.512	296,768
CA13C128.512	12,584	CA53C128.512	296,764
CA14C064.512	12,568	CA54C064.512	296,748
CA15C032.512	12,560	CA55C032.512	296,684
CA16C016.512	12,768	CA56C016.512	296,436
CA17C008.512	14,540	CA57C008.512	295,484
CA18C004.512	24,352	CA58C004.512	292,004
CA19C002.512	70,004	CA59C002.512	279,312
CA21C512.512	93,641	CA61C512.512	307,721
CA22C256.512	93,640	CA62C256.512	307,720
CA23C128.512	93,636	CA63C128.512	307,716
CA24C064.512	93,620	CA64C064.512	307,700
CA25C032.512	93,556	CA65C032.512	307,636
CA26C016.512	93,424	CA66C016.512	307,388
CA27C008.512	93,408	CA67C008.512	306,440
CA28C004.512	95,776	CA68C004.512	302,956
CA29C002.512	117,792	CA69C002.512	289,996
CA31C512.512	195,801	CA71C512.512	295,301
CA32C256.512	195,800	CA72C256.512	295,300
CA33C128.512	195,796	CA73C128.512	295,296
CA34C064.512	195,780	CA74C064.512	295,280
CA35C032.512	195,716	CA75C032.512	295,216
CA36C016.512	195,476	CA76C016.512	294,968
CA37C008.512	194,724	CA77C008.512	294,024
CA38C004.512	193,100	CA78C004.512	290,548
CA39C002.512	194,576	CA79C002.512	277,872

Table A.5.9 For Cat

Compressed Planes Results
Image: Cryistal at Entropy block = 002

CR01C512.002	4,389	CR41C512.002	158,133
CR02C256.002	4,388	CR42C256.002	158,132
CR03C128.002	4,384	CR43C128.002	158,128
CR04C064.002	4,380	CR44C064.002	158,112
CR05C032.002	4,420	CR45C032.002	158,048
CR06C016.002	4,860	CR46C016.002	157,804
CR07C008.002	7,392	CR47C008.002	156,984
CR08C004.002	18,892	CR48C004.002	156,084
CR09C002.002	66,920	CR49C002.002	166,364
CR11C512.002	22,385	CR51C512.002	216,953
CR12C256.002	22,384	CR52C256.002	216,952
CR13C128.002	22,380	CR53C128.002	216,948
CR14C064.002	22,364	CR54C064.002	216,932
CR15C032.002	22,328	CR55C032.002	216,868
CR16C016.002	22,468	CR56C016.002	216,612
CR17C008.002	24,056	CR57C008.002	215,652
CR18C004.002	33,180	CR58C004.002	212,532
CR19C002.002	75,948	CR59C002.002	210,012
CR21C512.002	57,685	CR61C512.002	279,021
CR22C256.002	57,684	CR62C256.002	279,020
CR23C128.002	57,680	CR63C128.002	279,016
CR24C064.002	57,664	CR64C064.002	279,000
CR25C032.002	57,604	CR65C032.002	278,936
CR26C016.002	57,552	CR66C016.002	278,680
CR27C008.002	58,228	CR67C008.002	277,676
CR28C004.002	64,320	CR68C004.002	273,916
CR29C002.002	98,168	CR69C002.002	261,356
CR31C512.002	104,777	CR71C512.002	277,001
CR32C256.002	104,776	CR72C256.002	277,000
CR33C128.002	104,772	CR73C128.002	276,996
CR34C064.002	104,756	CR74C064.002	276,980
CR35C032.002	104,692	CR75C032.002	276,916
CR36C016.002	104,492	CR76C016.002	276,660
CR37C008.002	104,308	CR77C008.002	275,660
CR38C004.002	106,980	CR78C004.002	271,876
CR39C002.002	129,548	CR79C002.002	258,992

Table A.6.1 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 004

CR01C512.004	4,429	CR41C512.004	165,197
CR02C256.004	4,428	CR42C256.004	165,196
CR03C128.004	4,424	CR43C128.004	165,192
CR04C064.004	4,420	CR44C064.004	165,176
CR05C032.004	4,464	CR45C032.004	165,112
CR06C016.004	4,908	CR46C016.004	164,864
CR07C008.004	7,448	CR47C008.004	164,008
CR08C004.004	18,932	CR48C004.004	162,776
CR09C002.004	66,948	CR49C002.004	171,836
CR11C512.004	22,949	CR51C512.004	224,609
CR12C256.004	22,948	CR52C256.004	224,608
CR13C128.004	22,944	CR53C128.004	224,604
CR14C064.004	22,928	CR54C064.004	224,588
CR15C032.004	22,892	CR55C032.004	224,524
CR16C016.004	23,036	CR56C016.004	224,268
CR17C008.004	24,612	CR57C008.004	223,300
CR18C004.004	33,696	CR58C004.004	220,116
CR19C002.004	76,328	CR59C002.004	216,480
CR21C512.004	59,441	CR61C512.004	285,913
CR22C256.004	59,440	CR62C256.004	285,912
CR23C128.004	59,436	CR63C128.004	285,908
CR24C064.004	59,420	CR64C064.004	285,892
CR25C032.004	59,360	CR65C032.004	285,828
CR26C016.004	59,296	CR66C016.004	285,572
CR27C008.004	59,940	CR67C008.004	284,568
CR28C004.004	65,908	CR68C004.004	280,812
CR29C002.004	99,356	CR69C002.004	267,928
CR31C512.004	109,105	CR71C512.004	275,725
CR32C256.004	109,104	CR72C256.004	275,724
CR33C128.004	109,100	CR73C128.004	275,720
CR34C064.004	109,084	CR74C064.004	275,704
CR35C032.004	109,020	CR75C032.004	275,640
CR36C016.004	108,816	CR76C016.004	275,384
CR37C008.004	108,588	CR77C008.004	274,384
CR38C004.004	110,968	CR78C004.004	270,608
CR39C002.004	132,624	CR79C002.004	257,860

Table A.6.2 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 008

CR01C512.008	4,493	CR41C512.008	168,577
CR02C256.008	4,492	CR42C256.008	168,576
CR03C128.008	4,488	CR43C128.008	168,572
CR04C064.008	4,484	CR44C064.008	168,556
CR05C032.008	4,528	CR45C032.008	168,492
CR06C016.008	4,964	CR46C016.008	168,244
CR07C008.008	7,492	CR47C008.008	167,392
CR08C004.008	18,972	CR48C004.008	166,080
CR09C002.008	66,964	CR49C002.008	174,416
CR11C512.008	23,225	CR51C512.008	229,493
CR12C256.008	23,224	CR52C256.008	229,492
CR13C128.008	23,220	CR53C128.008	229,488
CR14C064.008	23,204	CR54C064.008	229,472
CR15C032.008	23,168	CR55C032.008	229,408
CR16C016.008	23,312	CR56C016.008	229,152
CR17C008.008	24,888	CR57C008.008	228,184
CR18C004.008	33,932	CR58C004.008	224,932
CR19C002.008	76,476	CR59C002.008	220,532
CR21C512.008	60,901	CR61C512.008	289,057
CR22C256.008	60,900	CR62C256.008	289,056
CR23C128.008	60,896	CR63C128.008	289,052
CR24C064.008	60,880	CR64C064.008	289,036
CR25C032.008	60,820	CR65C032.008	288,972
CR26C016.008	60,748	CR66C016.008	288,716
CR27C008.008	61,360	CR67C008.008	287,712
CR28C004.008	67,180	CR68C004.008	283,956
CR29C002.008	100,292	CR69C002.008	270,976
CR31C512.008	111,705	CR71C512.008	274,045
CR32C256.008	111,704	CR72C256.008	274,044
CR33C128.008	111,700	CR73C128.008	274,040
CR34C064.008	111,684	CR74C064.008	274,024
CR35C032.008	111,620	CR75C032.008	273,960
CR36C016.008	111,404	CR76C016.008	273,704
CR37C008.008	111,120	CR77C008.008	272,704
CR38C004.008	113,336	CR78C004.008	268,924
CR39C002.008	134,336	CR79C002.008	256,368

Table A.6.3 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 016

CR01C512.016	4,473	CR41C512.016	171,173
CR02C256.016	4,472	CR42C256.016	171,172
CR03C128.016	4,468	CR43C128.016	171,168
CR04C064.016	4,464	CR44C064.016	171,152
CR05C032.016	4,504	CR45C032.016	171,088
CR06C016.016	4,940	CR46C016.016	170,840
CR07C008.016	7,464	CR47C008.016	169,988
CR08C004.016	18,948	CR48C004.016	168,560
CR09C002.016	66,952	CR49C002.016	176,392
CR11C512.016	23,341	CR51C512.016	231,781
CR12C256.016	23,340	CR52C256.016	231,780
CR13C128.016	23,336	CR53C128.016	231,776
CR14C064.016	23,320	CR54C064.016	231,760
CR15C032.016	23,284	CR55C032.016	231,696
CR16C016.016	23,440	CR56C016.016	231,440
CR17C008.016	25,012	CR57C008.016	230,472
CR18C004.016	34,028	CR58C004.016	227,192
CR19C002.016	76,536	CR59C002.016	222,448
CR21C512.016	61,681	CR61C512.016	291,085
CR22C256.016	61,680	CR62C256.016	291,084
CR23C128.016	61,676	CR63C128.016	291,080
CR24C064.016	61,660	CR64C064.016	291,064
CR25C032.016	61,600	CR65C032.016	291,000
CR26C016.016	61,512	CR66C016.016	290,744
CR27C008.016	62,108	CR67C008.016	289,740
CR28C004.016	67,864	CR68C004.016	285,976
CR29C002.016	100,752	CR69C002.016	272,832
CR31C512.016	113,337	CR71C512.016	274,457
CR32C256.016	113,336	CR72C256.016	274,456
CR33C128.016	113,332	CR73C128.016	274,452
CR34C064.016	113,316	CR74C064.016	274,436
CR35C032.016	113,252	CR75C032.016	274,372
CR36C016.016	113,032	CR76C016.016	274,116
CR37C008.016	112,736	CR77C008.016	273,116
CR38C004.016	114,868	CR78C004.016	269,324
CR39C002.016	135,500	CR79C002.016	256,732

Table A.6.4 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 032

CR01C512.032	4,593	CR41C512.032	172,545
CR02C256.032	4,592	CR42C256.032	172,544
CR03C128.032	4,588	CR43C128.032	172,540
CR04C064.032	4,584	CR44C064.032	172,524
CR05C032.032	4,624	CR45C032.032	172,460
CR06C016.032	5,048	CR46C016.032	172,212
CR07C008.032	7,548	CR47C008.032	171,348
CR08C004.032	19,008	CR48C004.032	169,872
CR09C002.032	66,980	CR49C002.032	177,432
CR11C512.032	23,529	CR51C512.032	234,061
CR12C256.032	23,528	CR52C256.032	234,060
CR13C128.032	23,524	CR53C128.032	234,056
CR14C064.032	23,508	CR54C064.032	234,040
CR15C032.032	23,472	CR55C032.032	233,976
CR16C016.032	23,616	CR56C016.032	233,720
CR17C008.032	25,192	CR57C008.032	232,744
CR18C004.032	34,200	CR58C004.032	229,408
CR19C002.032	76,644	CR59C002.032	224,328
CR21C512.032	62,241	CR61C512.032	292,573
CR22C256.032	62,240	CR62C256.032	292,572
CR23C128.032	62,236	CR63C128.032	292,568
CR24C064.032	62,220	CR64C064.032	292,552
CR25C032.032	62,160	CR65C032.032	292,488
CR26C016.032	62,068	CR66C016.032	292,232
CR27C008.032	62,636	CR67C008.032	291,228
CR28C004.032	68,304	CR68C004.032	287,464
CR29C002.032	101,080	CR69C002.032	274,128
CR31C512.032	114,481	CR71C512.032	275,277
CR32C256.032	114,480	CR72C256.032	275,276
CR33C128.032	114,476	CR73C128.032	275,272
CR34C064.032	114,460	CR74C064.032	275,256
CR35C032.032	114,396	CR75C032.032	275,192
CR36C016.032	114,176	CR76C016.032	274,936
CR37C008.032	113,836	CR77C008.032	273,932
CR38C004.032	115,884	CR78C004.032	270,120
CR39C002.032	136,288	CR79C002.032	257,328

Table A.6.5 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 064

CR01C512.064	4,685	CR41C512.064	173,393
CR02C256.064	4,684	CR42C256.064	173,392
CR03C128.064	4,680	CR43C128.064	173,388
CR04C064.064	4,672	CR44C064.064	173,372
CR05C032.064	4,704	CR45C032.064	173,308
CR06C016.064	5,132	CR46C016.064	173,060
CR07C008.064	7,624	CR47C008.064	172,200
CR08C004.064	19,072	CR48C004.064	170,684
CR09C002.064	67,032	CR49C002.064	178,064
CR11C512.064	23,729	CR51C512.064	234,441
CR12C256.064	23,728	CR52C256.064	234,440
CR13C128.064	23,724	CR53C128.064	234,436
CR14C064.064	23,708	CR54C064.064	234,420
CR15C032.064	23,668	CR55C032.064	234,356
CR16C016.064	23,804	CR56C016.064	234,100
CR17C008.064	25,368	CR57C008.064	233,132
CR18C004.064	34,368	CR58C004.064	229,820
CR19C002.064	76,768	CR59C002.064	224,616
CR21C512.064	62,173	CR61C512.064	293,541
CR22C256.064	62,172	CR62C256.064	293,540
CR23C128.064	62,168	CR63C128.064	293,536
CR24C064.064	62,152	CR64C064.064	293,520
CR25C032.064	62,092	CR65C032.064	293,456
CR26C016.064	62,004	CR66C016.064	293,200
CR27C008.064	62,584	CR67C008.064	292,196
CR28C004.064	68,296	CR68C004.064	288,420
CR29C002.064	101,104	CR69C002.064	275,008
CR31C512.064	114,845	CR71C512.064	276,909
CR32C256.064	114,844	CR72C256.064	276,908
CR33C128.064	114,840	CR73C128.064	276,904
CR34C064.064	114,824	CR74C064.064	276,888
CR35C032.064	114,760	CR75C032.064	276,824
CR36C016.064	114,544	CR76C016.064	276,568
CR37C008.064	114,208	CR77C008.064	275,564
CR38C004.064	116,244	CR78C004.064	271,736
CR39C002.064	136,592	CR79C002.064	258,780

Table A.6.6 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 128

CR01C512.128	4,737	CR41C512.128	174,417
CR02C256.128	4,736	CR42C256.128	174,416
CR03C128.128	4,732	CR43C128.128	174,412
CR04C064.128	4,728	CR44C064.128	174,396
CR05C032.128	4,768	CR45C032.128	174,332
CR06C016.128	5,196	CR46C016.128	174,080
CR07C008.128	7,696	CR47C008.128	173,208
CR08C004.128	19,148	CR48C004.128	171,648
CR09C002.128	67,076	CR49C002.128	178,848
CR11C512.128	23,833	CR51C512.128	235,121
CR12C256.128	23,832	CR52C256.128	235,120
CR13C128.128	23,828	CR53C128.128	235,116
CR14C064.128	23,812	CR54C064.128	235,100
CR15C032.128	23,772	CR55C032.128	235,036
CR16C016.128	23,908	CR56C016.128	234,780
CR17C008.128	25,468	CR57C008.128	233,808
CR18C004.128	34,436	CR58C004.128	230,512
CR19C002.128	76,816	CR59C002.128	225,352
CR21C512.128	62,909	CR61C512.128	292,921
CR22C256.128	62,908	CR62C256.128	292,920
CR23C128.128	62,904	CR63C128.128	292,916
CR24C064.128	62,888	CR64C064.128	292,900
CR25C032.128	62,828	CR65C032.128	292,836
CR26C016.128	62,740	CR66C016.128	292,580
CR27C008.128	63,284	CR67C008.128	291,576
CR28C004.128	68,916	CR68C004.128	287,792
CR29C002.128	101,480	CR69C002.128	274,448
CR31C512.128	115,561	CR71C512.128	276,373
CR32C256.128	115,560	CR72C256.128	276,372
CR33C128.128	115,556	CR73C128.128	276,368
CR34C064.128	115,540	CR74C064.128	276,352
CR35C032.128	115,476	CR75C032.128	276,288
CR36C016.128	115,264	CR76C016.128	276,032
CR37C008.128	114,936	CR77C008.128	275,028
CR38C004.128	116,928	CR78C004.128	271,184
CR39C002.128	137,152	CR79C002.128	258,300

Table A.6.7 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 256

CR01C512.256	4,649	CR41C512.256	175,973
CR02C256.256	4,648	CR42C256.256	175,972
CR03C128.256	4,644	CR43C128.256	175,968
CR04C064.256	4,632	CR44C064.256	175,952
CR05C032.256	4,668	CR45C032.256	175,888
CR06C016.256	5,104	CR46C016.256	175,644
CR07C008.256	7,616	CR47C008.256	174,800
CR08C004.256	19,084	CR48C004.256	173,404
CR09C002.256	67,036	CR49C002.256	180,412
CR11C512.256	24,045	CR51C512.256	238,521
CR12C256.256	24,044	CR52C256.256	238,520
CR13C128.256	24,040	CR53C128.256	238,516
CR14C064.256	24,024	CR54C064.256	238,500
CR15C032.256	23,988	CR55C032.256	238,436
CR16C016.256	24,108	CR56C016.256	238,180
CR17C008.256	25,640	CR57C008.256	237,212
CR18C004.256	34,588	CR58C004.256	233,920
CR19C002.256	76,916	CR59C002.256	228,232
CR21C512.256	63,321	CR61C512.256	293,021
CR22C256.256	63,320	CR62C256.256	293,020
CR23C128.256	63,316	CR63C128.256	293,016
CR24C064.256	63,300	CR64C064.256	293,000
CR25C032.256	63,240	CR65C032.256	292,936
CR26C016.256	63,168	CR66C016.256	292,680
CR27C008.256	63,744	CR67C008.256	291,676
CR28C004.256	69,384	CR68C004.256	287,908
CR29C002.256	101,872	CR69C002.256	274,776
CR31C512.256	116,537	CR71C512.256	270,045
CR32C256.256	116,536	CR72C256.256	270,044
CR33C128.256	116,532	CR73C128.256	270,040
CR34C064.256	116,516	CR74C064.256	270,024
CR35C032.256	116,452	CR75C032.256	269,960
CR36C016.256	116,248	CR76C016.256	269,704
CR37C008.256	115,972	CR77C008.256	268,704
CR38C004.256	118,108	CR78C004.256	264,932
CR39C002.256	138,244	CR79C002.256	252,984

Table A.6.8 For Cryistal

Compressed Planes Results
Image: Cryistal at Entropy block = 512

CR01C512.512	4,649	CR41C512.512	175,973
CR02C256.512	4,648	CR42C256.512	175,972
CR03C128.512	4,644	CR43C128.512	175,968
CR04C064.512	4,632	CR44C064.512	175,952
CR05C032.512	4,668	CR45C032.512	175,888
CR06C016.512	5,104	CR46C016.512	175,644
CR07C008.512	7,616	CR47C008.512	174,800
CR08C004.512	19,084	CR48C004.512	173,404
CR09C002.512	67,036	CR49C002.512	180,412
CR11C512.512	24,045	CR51C512.512	238,521
CR12C256.512	24,044	CR52C256.512	238,520
CR13C128.512	24,040	CR53C128.512	238,516
CR14C064.512	24,024	CR54C064.512	238,500
CR15C032.512	23,988	CR55C032.512	238,436
CR16C016.512	24,108	CR56C016.512	238,180
CR17C008.512	25,640	CR57C008.512	237,212
CR18C004.512	34,588	CR58C004.512	233,920
CR19C002.512	76,916	CR59C002.512	228,232
CR21C512.512	63,321	CR61C512.512	293,021
CR22C256.512	63,320	CR62C256.512	293,020
CR23C128.512	63,316	CR63C128.512	293,016
CR24C064.512	63,300	CR64C064.512	293,000
CR25C032.512	63,240	CR65C032.512	292,936
CR26C016.512	63,168	CR66C016.512	292,680
CR27C008.512	63,744	CR67C008.512	291,676
CR28C004.512	69,384	CR68C004.512	287,908
CR29C002.512	101,872	CR69C002.512	274,776
CR31C512.512	116,537	CR71C512.512	270,045
CR32C256.512	116,536	CR72C256.512	270,044
CR33C128.512	116,532	CR73C128.512	270,040
CR34C064.512	116,516	CR74C064.512	270,024
CR35C032.512	116,452	CR75C032.512	269,960
CR36C016.512	116,248	CR76C016.512	269,704
CR37C008.512	115,972	CR77C008.512	268,704
CR38C004.512	118,108	CR78C004.512	264,932
CR39C002.512	138,244	CR79C002.512	252,984

Table A.6.9 For Cryistal

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 002

LA01C512.002	1,153	LA41C512.002	153,081
LA02C256.002	1,152	LA42C256.002	153,080
LA03C128.002	1,148	LA43C128.002	153,076
LA04C064.002	1,168	LA44C064.002	153,060
LA05C032.002	1,308	LA45C032.002	152,996
LA06C016.002	1,988	LA46C016.002	152,740
LA07C008.002	4,928	LA47C008.002	151,720
LA08C004.002	17,044	LA48C004.002	149,140
LA09C002.002	65,920	LA49C002.002	156,552
LA11C512.002	7,077	LA51C512.002	229,525
LA12C256.002	7,076	LA52C256.002	229,524
LA13C128.002	7,072	LA53C128.002	229,520
LA14C064.002	7,068	LA54C064.002	229,504
LA15C032.002	7,124	LA55C032.002	229,440
LA16C016.002	7,580	LA56C016.002	229,184
LA17C008.002	10,060	LA57C008.002	228,160
LA18C004.002	21,292	LA58C004.002	224,156
LA19C002.002	68,504	LA59C002.002	216,252
LA21C512.002	29,797	LA61C512.002	293,501
LA22C256.002	29,796	LA62C256.002	293,500
LA23C128.002	29,792	LA63C128.002	293,496
LA24C064.002	29,776	LA64C064.002	293,480
LA25C032.002	29,736	LA65C032.002	293,416
LA26C016.002	29,800	LA66C016.002	293,160
LA27C008.002	31,052	LA67C008.002	292,136
LA28C004.002	39,268	LA68C004.002	288,040
LA29C002.002	80,212	LA69C002.002	272,456
LA31C512.002	80,837	LA71C512.002	295,493
LA32C256.002	80,836	LA72C256.002	295,492
LA33C128.002	80,832	LA73C128.002	295,488
LA34C064.002	80,816	LA74C064.002	295,472
LA35C032.002	80,752	LA75C032.002	295,408
LA36C016.002	80,528	LA76C016.002	295,152
LA37C008.002	80,164	LA77C008.002	294,128
LA38C004.002	82,484	LA78C004.002	290,032
LA39C002.002	109,056	LA79C002.002	274,188

Table A.7.1 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 004

LA01C512.004	1,241	LA41C512.004	163,081
LA02C256.004	1,240	LA42C256.004	163,080
LA03C128.004	1,236	LA43C128.004	163,076
LA04C064.004	1,256	LA44C064.004	163,060
LA05C032.004	1,392	LA45C032.004	162,996
LA06C016.004	2,068	LA46C016.004	162,740
LA07C008.004	4,996	LA47C008.004	161,724
LA08C004.004	17,096	LA48C004.004	158,832
LA09C002.004	65,952	LA49C002.004	164,392
LA11C512.004	7,281	LA51C512.004	241,085
LA12C256.004	7,280	LA52C256.004	241,084
LA13C128.004	7,276	LA53C128.004	241,080
LA14C064.004	7,272	LA54C064.004	241,064
LA15C032.004	7,328	LA55C032.004	241,000
LA16C016.004	7,780	LA56C016.004	240,744
LA17C008.004	10,244	LA57C008.004	239,720
LA18C004.004	21,460	LA58C004.004	235,692
LA19C002.004	68,616	LA59C002.004	226,680
LA21C512.004	31,289	LA61C512.004	302,357
LA22C256.004	31,288	LA62C256.004	302,356
LA23C128.004	31,284	LA63C128.004	302,352
LA24C064.004	31,268	LA64C064.004	302,336
LA25C032.004	31,228	LA65C032.004	302,272
LA26C016.004	31,284	LA66C016.004	302,016
LA27C008.004	32,440	LA67C008.004	300,992
LA28C004.004	40,416	LA68C004.004	296,896
LA29C002.004	80,976	LA69C002.004	281,132
LA31C512.004	85,945	LA71C512.004	292,901
LA32C256.004	85,944	LA72C256.004	292,900
LA33C128.004	85,940	LA73C128.004	292,896
LA34C064.004	85,924	LA74C064.004	292,880
LA35C032.004	85,860	LA75C032.004	292,816
LA36C016.004	85,624	LA76C016.004	292,560
LA37C008.004	85,148	LA77C008.004	291,536
LA38C004.004	87,004	LA78C004.004	287,440
LA39C002.004	112,276	LA79C002.004	271,604

Table A.7.2 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 008

LA01C512.008	1,233	LA41C512.008	168,317
LA02C256.008	1,232	LA42C256.008	168,316
LA03C128.008	1,228	LA43C128.008	168,312
LA04C064.008	1,248	LA44C064.008	168,296
LA05C032.008	1,388	LA45C032.008	168,232
LA06C016.008	2,072	LA46C016.008	167,976
LA07C008.008	5,008	LA47C008.008	166,956
LA08C004.008	17,112	LA48C004.008	163,876
LA09C002.008	65,964	LA49C002.008	168,132
LA11C512.008	7,405	LA51C512.008	246,629
LA12C256.008	7,404	LA52C256.008	246,628
LA13C128.008	7,400	LA53C128.008	246,624
LA14C064.008	7,396	LA54C064.008	246,608
LA15C032.008	7,448	LA55C032.008	246,544
LA16C016.008	7,896	LA56C016.008	246,288
LA17C008.008	10,344	LA57C008.008	245,264
LA18C004.008	21,528	LA58C004.008	241,228
LA19C002.008	68,644	LA59C002.008	231,320
LA21C512.008	32,449	LA61C512.008	304,989
LA22C256.008	32,448	LA62C256.008	304,988
LA23C128.008	32,444	LA63C128.008	304,984
LA24C064.008	32,428	LA64C064.008	304,968
LA25C032.008	32,392	LA65C032.008	304,904
LA26C016.008	32,444	LA66C016.008	304,648
LA27C008.008	33,544	LA67C008.008	303,624
LA28C004.008	41,340	LA68C004.008	299,528
LA29C002.008	81,504	LA69C002.008	283,688
LA31C512.008	89,289	LA71C512.008	292,641
LA32C256.008	89,288	LA72C256.008	292,640
LA33C128.008	89,284	LA73C128.008	292,636
LA34C064.008	89,268	LA74C064.008	292,620
LA35C032.008	89,204	LA75C032.008	292,556
LA36C016.008	88,968	LA76C016.008	292,300
LA37C008.008	88,440	LA77C008.008	291,276
LA38C004.008	90,028	LA78C004.008	287,180
LA39C002.008	114,340	LA79C002.008	271,412

Table A.7.3 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 016

LA01C512.016	1,281	LA41C512.016	172,033
LA02C256.016	1,280	LA42C256.016	172,032
LA03C128.016	1,276	LA43C128.016	172,028
LA04C064.016	1,296	LA44C064.016	172,012
LA05C032.016	1,436	LA45C032.016	171,948
LA06C016.016	2,108	LA46C016.016	171,692
LA07C008.016	5,032	LA47C008.016	170,676
LA08C004.016	17,124	LA48C004.016	167,652
LA09C002.016	65,968	LA49C002.016	171,232
LA11C512.016	7,537	LA51C512.016	252,025
LA12C256.016	7,536	LA52C256.016	252,024
LA13C128.016	7,532	LA53C128.016	252,020
LA14C064.016	7,528	LA54C064.016	252,004
LA15C032.016	7,584	LA55C032.016	251,940
LA16C016.016	8,036	LA56C016.016	251,684
LA17C008.016	10,480	LA57C008.016	250,660
LA18C004.016	21,648	LA58C004.016	246,620
LA19C002.016	68,728	LA59C002.016	235,992
LA21C512.016	32,453	LA61C512.016	306,833
LA22C256.016	32,452	LA62C256.016	306,832
LA23C128.016	32,448	LA63C128.016	306,828
LA24C064.016	32,432	LA64C064.016	306,812
LA25C032.016	32,392	LA65C032.016	306,748
LA26C016.016	32,440	LA66C016.016	306,492
LA27C008.016	33,560	LA67C008.016	305,468
LA28C004.016	41,448	LA68C004.016	301,376
LA29C002.016	81,648	LA69C002.016	285,472
LA31C512.016	90,633	LA71C512.016	293,357
LA32C256.016	90,632	LA72C256.016	293,356
LA33C128.016	90,628	LA73C128.016	293,352
LA34C064.016	90,612	LA74C064.016	293,336
LA35C032.016	90,548	LA75C032.016	293,272
LA36C016.016	90,312	LA76C016.016	293,016
LA37C008.016	89,772	LA77C008.016	291,992
LA38C004.016	91,376	LA78C004.016	287,896
LA39C002.016	115,424	LA79C002.016	272,076

Table A.7.4 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 032

LA01C512.032	1,337	LA41C512.032	174,013
LA02C256.032	1,336	LA42C256.032	174,012
LA03C128.032	1,332	LA43C128.032	174,008
LA04C064.032	1,352	LA44C064.032	173,992
LA05C032.032	1,492	LA45C032.032	173,928
LA06C016.032	2,164	LA46C016.032	173,672
LA07C008.032	5,084	LA47C008.032	172,656
LA08C004.032	17,168	LA48C004.032	169,632
LA09C002.032	65,996	LA49C002.032	172,872
LA11C512.032	7,601	LA51C512.032	254,993
LA12C256.032	7,600	LA52C256.032	254,992
LA13C128.032	7,596	LA53C128.032	254,988
LA14C064.032	7,592	LA54C064.032	254,972
LA15C032.032	7,648	LA55C032.032	254,908
LA16C016.032	8,092	LA56C016.032	254,652
LA17C008.032	10,524	LA57C008.032	253,628
LA18C004.032	21,672	LA58C004.032	249,588
LA19C002.032	68,744	LA59C002.032	238,440
LA21C512.032	32,321	LA61C512.032	308,501
LA22C256.032	32,320	LA62C256.032	308,500
LA23C128.032	32,316	LA63C128.032	308,496
LA24C064.032	32,300	LA64C064.032	308,480
LA25C032.032	32,260	LA65C032.032	308,416
LA26C016.032	32,312	LA66C016.032	308,160
LA27C008.032	33,484	LA67C008.032	307,136
LA28C004.032	41,432	LA68C004.032	303,040
LA29C002.032	81,704	LA69C002.032	287,084
LA31C512.032	90,381	LA71C512.032	293,441
LA32C256.032	90,380	LA72C256.032	293,440
LA33C128.032	90,376	LA73C128.032	293,436
LA34C064.032	90,360	LA74C064.032	293,420
LA35C032.032	90,296	LA75C032.032	293,356
LA36C016.032	90,060	LA76C016.032	293,100
LA37C008.032	89,548	LA77C008.032	292,076
LA38C004.032	91,328	LA78C004.032	287,980
LA39C002.032	115,512	LA79C002.032	272,156

Table A.7.5 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 064

LA01C512.064	1,309	LA41C512.064	174,281
LA02C256.064	1,308	LA42C256.064	174,280
LA03C128.064	1,304	LA43C128.064	174,276
LA04C064.064	1,324	LA44C064.064	174,260
LA05C032.064	1,464	LA45C032.064	174,196
LA06C016.064	2,140	LA46C016.064	173,940
LA07C008.064	5,068	LA47C008.064	172,924
LA08C004.064	17,160	LA48C004.064	169,896
LA09C002.064	65,992	LA49C002.064	173,072
LA11C512.064	7,649	LA51C512.064	256,241
LA12C256.064	7,648	LA52C256.064	256,240
LA13C128.064	7,644	LA53C128.064	256,236
LA14C064.064	7,640	LA54C064.064	256,220
LA15C032.064	7,692	LA55C032.064	256,156
LA16C016.064	8,132	LA56C016.064	255,900
LA17C008.064	10,572	LA57C008.064	254,876
LA18C004.064	21,732	LA58C004.064	250,832
LA19C002.064	68,784	LA59C002.064	239,524
LA21C512.064	32,149	LA61C512.064	309,105
LA22C256.064	32,148	LA62C256.064	309,104
LA23C128.064	32,144	LA63C128.064	309,100
LA24C064.064	32,128	LA64C064.064	309,084
LA25C032.064	32,088	LA65C032.064	309,020
LA26C016.064	32,136	LA66C016.064	308,764
LA27C008.064	33,316	LA67C008.064	307,740
LA28C004.064	41,312	LA68C004.064	303,648
LA29C002.064	81,664	LA69C002.064	287,664
LA31C512.064	90,605	LA71C512.064	293,377
LA32C256.064	90,604	LA72C256.064	293,376
LA33C128.064	90,600	LA73C128.064	293,372
LA34C064.064	90,584	LA74C064.064	293,356
LA35C032.064	90,520	LA75C032.064	293,292
LA36C016.064	90,284	LA76C016.064	293,036
LA37C008.064	89,780	LA77C008.064	292,012
LA38C004.064	91,596	LA78C004.064	287,916
LA39C002.064	115,756	LA79C002.064	272,112

Table A.7.6 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 128

LA01C512.128	1,269	LA41C512.128	174,409
LA02C256.128	1,268	LA42C256.128	174,408
LA03C128.128	1,264	LA43C128.128	174,404
LA04C064.128	1,284	LA44C064.128	174,388
LA05C032.128	1,424	LA45C032.128	174,324
LA06C016.128	2,104	LA46C016.128	174,068
LA07C008.128	5,036	LA47C008.128	173,052
LA08C004.128	17,132	LA48C004.128	170,052
LA09C002.128	65,976	LA49C002.128	173,216
LA11C512.128	7,753	LA51C512.128	255,969
LA12C256.128	7,752	LA52C256.128	255,968
LA13C128.128	7,748	LA53C128.128	255,964
LA14C064.128	7,744	LA54C064.128	255,948
LA15C032.128	7,800	LA55C032.128	255,884
LA16C016.128	8,236	LA56C016.128	255,628
LA17C008.128	10,656	LA57C008.128	254,604
LA18C004.128	21,796	LA58C004.128	250,560
LA19C002.128	68,824	LA59C002.128	239,256
LA21C512.128	32,453	LA61C512.128	308,677
LA22C256.128	32,452	LA62C256.128	308,676
LA23C128.128	32,448	LA63C128.128	308,672
LA24C064.128	32,432	LA64C064.128	308,656
LA25C032.128	32,392	LA65C032.128	308,592
LA26C016.128	32,440	LA66C016.128	308,336
LA27C008.128	33,620	LA67C008.128	307,312
LA28C004.128	41,604	LA68C004.128	303,216
LA29C002.128	81,844	LA69C002.128	287,252
LA31C512.128	90,421	LA71C512.128	293,365
LA32C256.128	90,420	LA72C256.128	293,364
LA33C128.128	90,416	LA73C128.128	293,360
LA34C064.128	90,400	LA74C064.128	293,344
LA35C032.128	90,336	LA75C032.128	293,280
LA36C016.128	90,100	LA76C016.128	293,024
LA37C008.128	89,600	LA77C008.128	292,000
LA38C004.128	91,448	LA78C004.128	287,904
LA39C002.128	115,628	LA79C002.128	272,092

Table A.7.7 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 256

LA01C512.256	1,377	LA41C512.256	174,317
LA02C256.256	1,376	LA42C256.256	174,316
LA03C128.256	1,372	LA43C128.256	174,312
LA04C064.256	1,392	LA44C064.256	174,296
LA05C032.256	1,528	LA45C032.256	174,232
LA06C016.256	2,200	LA46C016.256	173,976
LA07C008.256	5,120	LA47C008.256	172,960
LA08C004.256	17,200	LA48C004.256	169,968
LA09C002.256	66,016	LA49C002.256	173,192
LA11C512.256	7,809	LA51C512.256	255,557
LA12C256.256	7,808	LA52C256.256	255,556
LA13C128.256	7,804	LA53C128.256	255,552
LA14C064.256	7,800	LA54C064.256	255,536
LA15C032.256	7,856	LA55C032.256	255,472
LA16C016.256	8,296	LA56C016.256	255,216
LA17C008.256	10,720	LA57C008.256	254,192
LA18C004.256	21,856	LA58C004.256	250,152
LA19C002.256	68,860	LA59C002.256	238,956
LA21C512.256	32,401	LA61C512.256	308,373
LA22C256.256	32,400	LA62C256.256	308,372
LA23C128.256	32,396	LA63C128.256	308,368
LA24C064.256	32,380	LA64C064.256	308,352
LA25C032.256	32,340	LA65C032.256	308,288
LA26C016.256	32,388	LA66C016.256	308,032
LA27C008.256	33,560	LA67C008.256	307,008
LA28C004.256	41,556	LA68C004.256	302,912
LA29C002.256	81,800	LA69C002.256	286,944
LA31C512.256	90,673	LA71C512.256	293,013
LA32C256.256	90,672	LA72C256.256	293,012
LA33C128.256	90,668	LA73C128.256	293,008
LA34C064.256	90,652	LA74C064.256	292,992
LA35C032.256	90,588	LA75C032.256	292,928
LA36C016.256	90,352	LA76C016.256	292,672
LA37C008.256	89,852	LA77C008.256	291,648
LA38C004.256	91,696	LA78C004.256	287,552
LA39C002.256	115,856	LA79C002.256	271,764

Table A.7.8 For Larry512

Compressed Planes Results
Image: Larry512.bin at Entropy Block size = 512

LA01C512.512	1,377	LA41C512.512	174,317
LA02C256.512	1,376	LA42C256.512	174,316
LA03C128.512	1,372	LA43C128.512	174,312
LA04C064.512	1,392	LA44C064.512	174,296
LA05C032.512	1,528	LA45C032.512	174,232
LA06C016.512	2,200	LA46C016.512	173,976
LA07C008.512	5,120	LA47C008.512	172,960
LA08C004.512	17,200	LA48C004.512	169,968
LA09C002.512	66,016	LA49C002.512	173,192
LA11C512.512	7,809	LA51C512.512	255,557
LA12C256.512	7,808	LA52C256.512	255,556
LA13C128.512	7,804	LA53C128.512	255,552
LA14C064.512	7,800	LA54C064.512	255,536
LA15C032.512	7,856	LA55C032.512	255,472
LA16C016.512	8,296	LA56C016.512	255,216
LA17C008.512	10,720	LA57C008.512	254,192
LA18C004.512	21,856	LA58C004.512	250,152
LA19C002.512	68,860	LA59C002.512	238,956
LA21C512.512	32,401	LA61C512.512	308,373
LA22C256.512	32,400	LA62C256.512	308,372
LA23C128.512	32,396	LA63C128.512	308,368
LA24C064.512	32,380	LA64C064.512	308,352
LA25C032.512	32,340	LA65C032.512	308,288
LA26C016.512	32,388	LA66C016.512	308,032
LA27C008.512	33,560	LA67C008.512	307,008
LA28C004.512	41,556	LA68C004.512	302,912
LA29C002.512	81,800	LA69C002.512	286,944
LA31C512.512	90,673	LA71C512.512	293,013
LA32C256.512	90,672	LA72C256.512	293,012
LA33C128.512	90,668	LA73C128.512	293,008
LA34C064.512	90,652	LA74C064.512	292,992
LA35C032.512	90,588	LA75C032.512	292,928
LA36C016.512	90,352	LA76C016.512	292,672
LA37C008.512	89,852	LA77C008.512	291,648
LA38C004.512	91,696	LA78C004.512	287,552
LA39C002.512	115,856	LA79C002.512	271,764

Table A.7.9 For Larry512

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 002

LE01C512.002	721	LE41C512.002	236,157
LE02C256.002	720	LE42C256.002	236,156
LE03C128.002	720	LE43C128.002	236,152
LE04C064.002	736	LE44C064.002	236,136
LE05C032.002	880	LE45C032.002	236,072
LE06C016.002	1,584	LE46C016.002	235,816
LE07C008.002	4,568	LE47C008.002	234,792
LE08C004.002	16,740	LE48C004.002	230,864
LE09C002.002	65,736	LE49C002.002	220,356
LE11C512.002	9,973	LE51C512.002	296,493
LE12C256.002	9,972	LE52C256.002	296,492
LE13C128.002	9,968	LE53C128.002	296,488
LE14C064.002	9,952	LE54C064.002	296,472
LE15C032.002	9,968	LE55C032.002	296,408
LE16C016.002	10,352	LE56C016.002	296,152
LE17C008.002	12,588	LE57C008.002	295,128
LE18C004.002	23,224	LE58C004.002	291,032
LE19C002.002	69,600	LE59C002.002	275,072
LE21C512.002	41,537	LE61C512.002	317,285
LE22C256.002	41,536	LE62C256.002	317,284
LE23C128.002	41,532	LE63C128.002	317,280
LE24C064.002	41,516	LE64C064.002	317,264
LE25C032.002	41,472	LE65C032.002	317,200
LE26C016.002	41,516	LE66C016.002	316,944
LE27C008.002	42,560	LE67C008.002	315,920
LE28C004.002	49,716	LE68C004.002	311,824
LE29C002.002	87,336	LE69C002.002	295,508
LE31C512.002	117,489	LE71C512.002	324,601
LE32C256.002	117,488	LE72C256.002	324,600
LE33C128.002	117,484	LE73C128.002	324,596
LE34C064.002	117,468	LE74C064.002	324,580
LE35C032.002	117,404	LE75C032.002	324,516
LE36C016.002	117,164	LE76C016.002	324,260
LE37C008.002	116,504	LE77C008.002	323,236
LE38C004.002	116,812	LE78C004.002	319,140
LE39C002.002	133,456	LE79C002.002	302,820

Table A.8.1 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 004

LE01C512.004	761	LE41C512.004	247,889
LE02C256.004	760	LE42C256.004	247,888
LE03C128.004	760	LE43C128.004	247,884
LE04C064.004	776	LE44C064.004	247,868
LE05C032.004	920	LE45C032.004	247,804
LE06C016.004	1,620	LE46C016.004	247,548
LE07C008.004	4,600	LE47C008.004	246,524
LE08C004.004	16,772	LE48C004.004	242,580
LE09C002.004	65,760	LE49C002.004	230,716
LE11C512.004	10,405	LE51C512.004	304,909
LE12C256.004	10,404	LE52C256.004	304,908
LE13C128.004	10,400	LE53C128.004	304,904
LE14C064.004	10,384	LE54C064.004	304,888
LE15C032.004	10,392	LE55C032.004	304,824
LE16C016.004	10,772	LE56C016.004	304,568
LE17C008.004	12,992	LE57C008.004	303,544
LE18C004.004	23,604	LE58C004.004	299,448
LE19C002.004	69,852	LE59C002.004	283,272
LE21C512.004	42,645	LE61C512.004	321,333
LE22C256.004	42,644	LE62C256.004	321,332
LE23C128.004	42,640	LE63C128.004	321,328
LE24C064.004	42,624	LE64C064.004	321,312
LE25C032.004	42,580	LE65C032.004	321,248
LE26C016.004	42,616	LE66C016.004	320,992
LE27C008.004	43,652	LE67C008.004	319,968
LE28C004.004	50,752	LE68C004.004	315,872
LE29C002.004	88,180	LE69C002.004	299,564
LE31C512.004	122,937	LE71C512.004	323,665
LE32C256.004	122,936	LE72C256.004	323,664
LE33C128.004	122,932	LE73C128.004	323,660
LE34C064.004	122,916	LE74C064.004	323,644
LE35C032.004	122,852	LE75C032.004	323,580
LE36C016.004	122,612	LE76C016.004	323,324
LE37C008.004	121,928	LE77C008.004	322,300
LE38C004.004	121,992	LE78C004.004	318,204
LE39C002.004	137,436	LE79C002.004	301,880

Table A.8.2 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 008

LE01C512.008	685	LE41C512.008	251,473
LE02C256.008	684	LE42C256.008	251,472
LE03C128.008	684	LE43C128.008	251,468
LE04C064.008	700	LE44C064.008	251,452
LE05C032.008	848	LE45C032.008	251,388
LE06C016.008	1,548	LE46C016.008	251,132
LE07C008.008	4,536	LE47C008.008	250,108
LE08C004.008	16,724	LE48C004.008	246,168
LE09C002.008	65,736	LE49C002.008	234,120
LE11C512.008	10,621	LE51C512.008	308,029
LE12C256.008	10,620	LE52C256.008	308,028
LE13C128.008	10,616	LE53C128.008	308,024
LE14C064.008	10,600	LE54C064.008	308,008
LE15C032.008	10,608	LE55C032.008	307,944
LE16C016.008	10,980	LE56C016.008	307,688
LE17C008.008	13,200	LE57C008.008	306,664
LE18C004.008	23,784	LE58C004.008	302,568
LE19C002.008	69,968	LE59C002.008	286,376
LE21C512.008	43,789	LE61C512.008	322,465
LE22C256.008	43,788	LE62C256.008	322,464
LE23C128.008	43,784	LE63C128.008	322,460
LE24C064.008	43,768	LE64C064.008	322,444
LE25C032.008	43,724	LE65C032.008	322,380
LE26C016.008	43,760	LE66C016.008	322,124
LE27C008.008	44,784	LE67C008.008	321,100
LE28C004.008	51,772	LE68C004.008	317,004
LE29C002.008	88,852	LE69C002.008	300,700
LE31C512.008	125,401	LE71C512.008	322,785
LE32C256.008	125,400	LE72C256.008	322,784
LE33C128.008	125,396	LE73C128.008	322,780
LE34C064.008	125,380	LE74C064.008	322,764
LE35C032.008	125,316	LE75C032.008	322,700
LE36C016.008	125,076	LE76C016.008	322,444
LE37C008.008	124,356	LE77C008.008	321,420
LE38C004.008	124,252	LE78C004.008	317,324
LE39C002.008	139,152	LE79C002.008	301,020

Table A.8.3 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 016

LE01C512.016	681	LE41C512.016	254,177
LE02C256.016	680	LE42C256.016	254,176
LE03C128.016	680	LE43C128.016	254,172
LE04C064.016	696	LE44C064.016	254,156
LE05C032.016	844	LE45C032.016	254,092
LE06C016.016	1,552	LE46C016.016	253,836
LE07C008.016	4,548	LE47C008.016	252,812
LE08C004.016	16,732	LE48C004.016	248,864
LE09C002.016	65,740	LE49C002.016	236,536
LE11C512.016	10,765	LE51C512.016	309,501
LE12C256.016	10,764	LE52C256.016	309,500
LE13C128.016	10,760	LE53C128.016	309,496
LE14C064.016	10,744	LE54C064.016	309,480
LE15C032.016	10,748	LE55C032.016	309,416
LE16C016.016	11,108	LE56C016.016	309,160
LE17C008.016	13,308	LE57C008.016	308,136
LE18C004.016	23,868	LE58C004.016	304,040
LE19C002.016	70,028	LE59C002.016	287,824
LE21C512.016	44,073	LE61C512.016	322,885
LE22C256.016	44,072	LE62C256.016	322,884
LE23C128.016	44,068	LE63C128.016	322,880
LE24C064.016	44,052	LE64C064.016	322,864
LE25C032.016	44,008	LE65C032.016	322,800
LE26C016.016	44,032	LE66C016.016	322,544
LE27C008.016	45,024	LE67C008.016	321,520
LE28C004.016	51,996	LE68C004.016	317,424
LE29C002.016	89,016	LE69C002.016	301,120
LE31C512.016	126,457	LE71C512.016	321,689
LE32C256.016	126,456	LE72C256.016	321,688
LE33C128.016	126,452	LE73C128.016	321,684
LE34C064.016	126,436	LE74C064.016	321,668
LE35C032.016	126,372	LE75C032.016	321,604
LE36C016.016	126,136	LE76C016.016	321,348
LE37C008.016	125,396	LE77C008.016	320,324
LE38C004.016	125,284	LE78C004.016	316,228
LE39C002.016	139,964	LE79C002.016	300,000

Table A.8.4 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 032

LE01C512.032	705	LE41C512.032	254,617
LE02C256.032	704	LE42C256.032	254,616
LE03C128.032	704	LE43C128.032	254,612
LE04C064.032	720	LE44C064.032	254,596
LE05C032.032	868	LE45C032.032	254,532
LE06C016.032	1,568	LE46C016.032	254,276
LE07C008.032	4,556	LE47C008.032	253,252
LE08C004.032	16,740	LE48C004.032	249,304
LE09C002.032	65,744	LE49C002.032	236,904
LE11C512.032	10,817	LE51C512.032	309,953
LE12C256.032	10,816	LE52C256.032	309,952
LE13C128.032	10,812	LE53C128.032	309,948
LE14C064.032	10,796	LE54C064.032	309,932
LE15C032.032	10,800	LE55C032.032	309,868
LE16C016.032	11,156	LE56C016.032	309,612
LE17C008.032	13,352	LE57C008.032	308,588
LE18C004.032	23,916	LE58C004.032	304,492
LE19C002.032	70,064	LE59C002.032	288,284
LE21C512.032	44,369	LE61C512.032	323,545
LE22C256.032	44,368	LE62C256.032	323,544
LE23C128.032	44,364	LE63C128.032	323,540
LE24C064.032	44,348	LE64C064.032	323,524
LE25C032.032	44,308	LE65C032.032	323,460
LE26C016.032	44,336	LE66C016.032	323,204
LE27C008.032	45,324	LE67C008.032	322,180
LE28C004.032	52,280	LE68C004.032	318,084
LE29C002.032	89,248	LE69C002.032	301,760
LE31C512.032	127,241	LE71C512.032	322,249
LE32C256.032	127,240	LE72C256.032	322,248
LE33C128.032	127,236	LE73C128.032	322,244
LE34C064.032	127,220	LE74C064.032	322,228
LE35C032.032	127,156	LE75C032.032	322,164
LE36C016.032	126,920	LE76C016.032	321,908
LE37C008.032	126,168	LE77C008.032	320,884
LE38C004.032	126,036	LE78C004.032	316,788
LE39C002.032	140,524	LE79C002.032	300,552

Table A.8.5 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 064

LE01C512.064	657	LE41C512.064	254,365
LE02C256.064	656	LE42C256.064	254,364
LE03C128.064	656	LE43C128.064	254,360
LE04C064.064	672	LE44C064.064	254,344
LE05C032.064	820	LE45C032.064	254,280
LE06C016.064	1,528	LE46C016.064	254,024
LE07C008.064	4,524	LE47C008.064	253,000
LE08C004.064	16,716	LE48C004.064	249,056
LE09C002.064	65,732	LE49C002.064	236,796
LE11C512.064	10,809	LE51C512.064	310,365
LE12C256.064	10,808	LE52C256.064	310,364
LE13C128.064	10,804	LE53C128.064	310,360
LE14C064.064	10,788	LE54C064.064	310,344
LE15C032.064	10,800	LE55C032.064	310,280
LE16C016.064	11,160	LE56C016.064	310,024
LE17C008.064	13,364	LE57C008.064	309,000
LE18C004.064	23,932	LE58C004.064	304,904
LE19C002.064	70,076	LE59C002.064	288,692
LE21C512.064	44,453	LE61C512.064	324,249
LE22C256.064	44,452	LE62C256.064	324,248
LE23C128.064	44,448	LE63C128.064	324,244
LE24C064.064	44,432	LE64C064.064	324,228
LE25C032.064	44,392	LE65C032.064	324,164
LE26C016.064	44,420	LE66C016.064	323,908
LE27C008.064	45,400	LE67C008.064	322,884
LE28C004.064	52,352	LE68C004.064	318,788
LE29C002.064	89,272	LE69C002.064	302,440
LE31C512.064	128,077	LE71C512.064	322,693
LE32C256.064	128,076	LE72C256.064	322,692
LE33C128.064	128,072	LE73C128.064	322,688
LE34C064.064	128,056	LE74C064.064	322,672
LE35C032.064	127,992	LE75C032.064	322,608
LE36C016.064	127,756	LE76C016.064	322,352
LE37C008.064	126,992	LE77C008.064	321,328
LE38C004.064	126,756	LE78C004.064	317,232
LE39C002.064	141,112	LE79C002.064	301,020

Table A.8.6 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 128

LE01C512.128	729	LE41C512.128	254,897
LE02C256.128	728	LE42C256.128	254,896
LE03C128.128	728	LE43C128.128	254,892
LE04C064.128	744	LE44C064.128	254,876
LE05C032.128	892	LE45C032.128	254,812
LE06C016.128	1,596	LE46C016.128	254,556
LE07C008.128	4,584	LE47C008.128	253,532
LE08C004.128	16,756	LE48C004.128	249,588
LE09C002.128	65,752	LE49C002.128	237,256
LE11C512.128	10,885	LE51C512.128	311,009
LE12C256.128	10,884	LE52C256.128	311,008
LE13C128.128	10,880	LE53C128.128	311,004
LE14C064.128	10,864	LE54C064.128	310,988
LE15C032.128	10,876	LE55C032.128	310,924
LE16C016.128	11,240	LE56C016.128	310,668
LE17C008.128	13,440	LE57C008.128	309,644
LE18C004.128	23,992	LE58C004.128	305,548
LE19C002.128	70,120	LE59C002.128	289,312
LE21C512.128	44,629	LE61C512.128	325,189
LE22C256.128	44,628	LE62C256.128	325,188
LE23C128.128	44,624	LE63C128.128	325,184
LE24C064.128	44,608	LE64C064.128	325,168
LE25C032.128	44,568	LE65C032.128	325,104
LE26C016.128	44,596	LE66C016.128	324,848
LE27C008.128	45,568	LE67C008.128	323,824
LE28C004.128	52,484	LE68C004.128	319,728
LE29C002.128	89,352	LE69C002.128	303,356
LE31C512.128	128,101	LE71C512.128	322,709
LE32C256.128	128,100	LE72C256.128	322,708
LE33C128.128	128,096	LE73C128.128	322,704
LE34C064.128	128,080	LE74C064.128	322,688
LE35C032.128	128,016	LE75C032.128	322,624
LE36C016.128	127,780	LE76C016.128	322,368
LE37C008.128	127,024	LE77C008.128	321,344
LE38C004.128	126,800	LE78C004.128	317,248
LE39C002.128	141,184	LE79C002.128	301,052

Table A.8.7 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 256

LE01C512.256	717	LE41C512.256	256,213
LE02C256.256	716	LE42C256.256	256,212
LE03C128.256	716	LE43C128.256	256,208
LE04C064.256	732	LE44C064.256	256,192
LE05C032.256	880	LE45C032.256	256,128
LE06C016.256	1,584	LE46C016.256	255,872
LE07C008.256	4,572	LE47C008.256	254,848
LE08C004.256	16,748	LE48C004.256	250,904
LE09C002.256	65,748	LE49C002.256	238,460
LE11C512.256	10,857	LE51C512.256	311,729
LE12C256.256	10,856	LE52C256.256	311,728
LE13C128.256	10,852	LE53C128.256	311,724
LE14C064.256	10,836	LE54C064.256	311,708
LE15C032.256	10,848	LE55C032.256	311,644
LE16C016.256	11,212	LE56C016.256	311,388
LE17C008.256	13,420	LE57C008.256	310,364
LE18C004.256	23,980	LE58C004.256	306,268
LE19C002.256	70,116	LE59C002.256	290,024
LE21C512.256	44,353	LE61C512.256	325,105
LE22C256.256	44,352	LE62C256.256	325,104
LE23C128.256	44,348	LE63C128.256	325,100
LE24C064.256	44,332	LE64C064.256	325,084
LE25C032.256	44,292	LE65C032.256	325,020
LE26C016.256	44,332	LE66C016.256	324,764
LE27C008.256	45,328	LE67C008.256	323,740
LE28C004.256	52,284	LE68C004.256	319,644
LE29C002.256	89,236	LE69C002.256	303,272
LE31C512.256	128,469	LE71C512.256	321,117
LE32C256.256	128,468	LE72C256.256	321,116
LE33C128.256	128,464	LE73C128.256	321,112
LE34C064.256	128,448	LE74C064.256	321,096
LE35C032.256	128,384	LE75C032.256	321,032
LE36C016.256	128,148	LE76C016.256	320,776
LE37C008.256	127,400	LE77C008.256	319,752
LE38C004.256	127,156	LE78C004.256	315,656
LE39C002.256	141,312	LE79C002.256	299,488

Table A.8.8 For LenaY

Compressed Planes Results
Image: LenaY.bin at Entropy Block size = 512

LE01C512.512	681	LE41C512.512	254,405
LE02C256.512	680	LE42C256.512	254,404
LE03C128.512	680	LE43C128.512	254,400
LE04C064.512	696	LE44C064.512	254,384
LE05C032.512	844	LE45C032.512	254,320
LE06C016.512	1,552	LE46C016.512	254,064
LE07C008.512	4,548	LE47C008.512	253,040
LE08C004.512	16,732	LE48C004.512	249,096
LE09C002.512	65,740	LE49C002.512	236,888
LE11C512.512	10,921	LE51C512.512	310,369
LE12C256.512	10,920	LE52C256.512	310,368
LE13C128.512	10,916	LE53C128.512	310,364
LE14C064.512	10,900	LE54C064.512	310,348
LE15C032.512	10,916	LE55C032.512	310,284
LE16C016.512	11,284	LE56C016.512	310,028
LE17C008.512	13,488	LE57C008.512	309,004
LE18C004.512	24,044	LE58C004.512	304,908
LE19C002.512	70,140	LE59C002.512	288,700
LE21C512.512	45,349	LE61C512.512	324,841
LE22C256.512	45,348	LE62C256.512	324,840
LE23C128.512	45,344	LE63C128.512	324,836
LE24C064.512	45,328	LE64C064.512	324,820
LE25C032.512	45,288	LE65C032.512	324,756
LE26C016.512	45,320	LE66C016.512	324,500
LE27C008.512	46,296	LE67C008.512	323,476
LE28C004.512	53,168	LE68C004.512	319,380
LE29C002.512	89,844	LE69C002.512	303,004
LE31C512.512	128,937	LE71C512.512	324,873
LE32C256.512	128,936	LE72C256.512	324,872
LE33C128.512	128,932	LE73C128.512	324,868
LE34C064.512	128,916	LE74C064.512	324,852
LE35C032.512	128,852	LE75C032.512	324,788
LE36C016.512	128,616	LE76C016.512	324,532
LE37C008.512	127,856	LE77C008.512	323,508
LE38C004.512	127,588	LE78C004.512	319,412
LE39C002.512	141,856	LE79C002.512	303,176

Table A.8.9 For LenaY

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 002

PE01C512.002	1,357	PE41C512.002	286,037
PE02C256.002	1,356	PE42C256.002	286,036
PE03C128.002	1,352	PE43C128.002	286,032
PE04C064.002	1,348	PE44C064.002	286,016
PE05C032.002	1,448	PE45C032.002	285,952
PE06C016.002	2,092	PE46C016.002	285,696
PE07C008.002	4,988	PE47C008.002	284,672
PE08C004.002	17,048	PE48C004.002	280,576
PE09C002.002	65,904	PE49C002.002	264,940
PE11C512.002	11,945	PE51C512.002	314,933
PE12C256.002	11,944	PE52C256.002	314,932
PE13C128.002	11,940	PE53C128.002	314,928
PE14C064.002	11,924	PE54C064.002	314,912
PE15C032.002	11,876	PE55C032.002	314,848
PE16C016.002	12,028	PE56C016.002	314,592
PE17C008.002	13,940	PE57C008.002	313,568
PE18C004.002	24,212	PE58C004.002	309,472
PE19C002.002	70,188	PE59C002.002	293,112
PE21C512.002	60,741	PE61C512.002	325,505
PE22C256.002	60,740	PE62C256.002	325,504
PE23C128.002	60,736	PE63C128.002	325,500
PE24C064.002	60,720	PE64C064.002	325,484
PE25C032.002	60,656	PE65C032.002	325,420
PE26C016.002	60,452	PE66C016.002	325,164
PE27C008.002	60,272	PE67C008.002	324,140
PE28C004.002	63,964	PE68C004.002	320,044
PE29C002.002	95,240	PE69C002.002	303,672
PE31C512.002	188,965	PE71C512.002	338,605
PE32C256.002	188,964	PE72C256.002	338,604
PE33C128.002	188,960	PE73C128.002	338,600
PE34C064.002	188,944	PE74C064.002	338,584
PE35C032.002	188,880	PE75C032.002	338,520
PE36C016.002	188,624	PE76C016.002	338,264
PE37C008.002	187,628	PE77C008.002	337,240
PE38C004.002	184,368	PE78C004.002	333,144
PE39C002.002	182,532	PE79C002.002	316,760

Table A.9.1 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 004

PE01C512.004	1,345	PE41C512.004	292,545
PE02C256.004	1,344	PE42C256.004	292,544
PE03C128.004	1,340	PE43C128.004	292,540
PE04C064.004	1,336	PE44C064.004	292,524
PE05C032.004	1,432	PE45C032.004	292,460
PE06C016.004	2,072	PE46C016.004	292,204
PE07C008.004	4,972	PE47C008.004	291,180
PE08C004.004	17,040	PE48C004.004	287,084
PE09C002.004	65,908	PE49C002.004	271,204
PE11C512.004	12,281	PE51C512.004	318,753
PE12C256.004	12,280	PE52C256.004	318,752
PE13C128.004	12,276	PE53C128.004	318,748
PE14C064.004	12,260	PE54C064.004	318,732
PE15C032.004	12,212	PE55C032.004	318,668
PE16C016.004	12,368	PE56C016.004	318,412
PE17C008.004	14,272	PE57C008.004	317,388
PE18C004.004	24,504	PE58C004.004	313,292
PE19C002.004	70,380	PE59C002.004	296,924
PE21C512.004	62,581	PE61C512.004	327,481
PE22C256.004	62,580	PE62C256.004	327,480
PE23C128.004	62,576	PE63C128.004	327,476
PE24C064.004	62,560	PE64C064.004	327,460
PE25C032.004	62,496	PE65C032.004	327,396
PE26C016.004	62,288	PE66C016.004	327,140
PE27C008.004	62,076	PE67C008.004	326,116
PE28C004.004	65,580	PE68C004.004	322,020
PE29C002.004	96,376	PE69C002.004	305,644
PE31C512.004	193,645	PE71C512.004	337,325
PE32C256.004	193,644	PE72C256.004	337,324
PE33C128.004	193,640	PE73C128.004	337,320
PE34C064.004	193,624	PE74C064.004	337,304
PE35C032.004	193,560	PE75C032.004	337,240
PE36C016.004	193,304	PE76C016.004	336,984
PE37C008.004	192,304	PE77C008.004	335,960
PE38C004.004	188,952	PE78C004.004	331,864
PE39C002.004	186,420	PE79C002.004	315,480

Table A.9.2 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 008

PE01C512.008	1,369	PE41C512.008	294,673
PE02C256.008	1,368	PE42C256.008	294,672
PE03C128.008	1,364	PE43C128.008	294,668
PE04C064.008	1,360	PE44C064.008	294,652
PE05C032.008	1,460	PE45C032.008	294,588
PE06C016.008	2,104	PE46C016.008	294,332
PE07C008.008	5,004	PE47C008.008	293,308
PE08C004.008	17,068	PE48C004.008	289,212
PE09C002.008	65,920	PE49C002.008	273,244
PE11C512.008	12,437	PE51C512.008	320,317
PE12C256.008	12,436	PE52C256.008	320,316
PE13C128.008	12,432	PE53C128.008	320,312
PE14C064.008	12,416	PE54C064.008	320,296
PE15C032.008	12,372	PE55C032.008	320,232
PE16C016.008	12,524	PE56C016.008	319,976
PE17C008.008	14,408	PE57C008.008	318,952
PE18C004.008	24,620	PE58C004.008	314,856
PE19C002.008	70,464	PE59C002.008	298,488
PE21C512.008	63,569	PE61C512.008	328,121
PE22C256.008	63,568	PE62C256.008	328,120
PE23C128.008	63,564	PE63C128.008	328,116
PE24C064.008	63,548	PE64C064.008	328,100
PE25C032.008	63,484	PE65C032.008	328,036
PE26C016.008	63,276	PE66C016.008	327,780
PE27C008.008	63,056	PE67C008.008	326,756
PE28C004.008	66,504	PE68C004.008	322,660
PE29C002.008	97,016	PE69C002.008	306,288
PE31C512.008	194,805	PE71C512.008	336,529
PE32C256.008	194,804	PE72C256.008	336,528
PE33C128.008	194,800	PE73C128.008	336,524
PE34C064.008	194,784	PE74C064.008	336,508
PE35C032.008	194,720	PE75C032.008	336,444
PE36C016.008	194,464	PE76C016.008	336,188
PE37C008.008	193,460	PE77C008.008	335,164
PE38C004.008	190,100	PE78C004.008	331,068
PE39C002.008	187,416	PE79C002.008	314,684

Table A.9.3 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 016

PE01C512.016	1,373	PE41C512.016	295,505
PE02C256.016	1,372	PE42C256.016	295,504
PE03C128.016	1,368	PE43C128.016	295,500
PE04C064.016	1,364	PE44C064.016	295,484
PE05C032.016	1,460	PE45C032.016	295,420
PE06C016.016	2,100	PE46C016.016	295,164
PE07C008.016	4,996	PE47C008.016	294,140
PE08C004.016	17,060	PE48C004.016	290,044
PE09C002.016	65,916	PE49C002.016	274,064
PE11C512.016	12,569	PE51C512.016	320,549
PE12C256.016	12,568	PE52C256.016	320,548
PE13C128.016	12,564	PE53C128.016	320,544
PE14C064.016	12,548	PE54C064.016	320,528
PE15C032.016	12,504	PE55C032.016	320,464
PE16C016.016	12,656	PE56C016.016	320,208
PE17C008.016	14,544	PE57C008.016	319,184
PE18C004.016	24,740	PE58C004.016	315,088
PE19C002.016	70,548	PE59C002.016	298,720
PE21C512.016	64,089	PE61C512.016	328,169
PE22C256.016	64,088	PE62C256.016	328,168
PE23C128.016	64,084	PE63C128.016	328,164
PE24C064.016	64,068	PE64C064.016	328,148
PE25C032.016	64,004	PE65C032.016	328,084
PE26C016.016	63,796	PE66C016.016	327,828
PE27C008.016	63,572	PE67C008.016	326,804
PE28C004.016	67,008	PE68C004.016	322,708
PE29C002.016	97,384	PE69C002.016	306,336
PE31C512.016	194,973	PE71C512.016	336,017
PE32C256.016	194,972	PE72C256.016	336,016
PE33C128.016	194,968	PE73C128.016	336,012
PE34C064.016	194,952	PE74C064.016	335,996
PE35C032.016	194,888	PE75C032.016	335,932
PE36C016.016	194,632	PE76C016.016	335,676
PE37C008.016	193,632	PE77C008.016	334,652
PE38C004.016	190,268	PE78C004.016	330,556
PE39C002.016	187,540	PE79C002.016	314,180

Table A.9.4 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 032

PE01C512.032	1,393	PE41C512.032	295,737
PE02C256.032	1,392	PE42C256.032	295,736
PE03C128.032	1,388	PE43C128.032	295,732
PE04C064.032	1,384	PE44C064.032	295,716
PE05C032.032	1,476	PE45C032.032	295,652
PE06C016.032	2,108	PE46C016.032	295,396
PE07C008.032	5,000	PE47C008.032	294,372
PE08C004.032	17,060	PE48C004.032	290,276
PE09C002.032	65,916	PE49C002.032	274,308
PE11C512.032	12,561	PE51C512.032	320,901
PE12C256.032	12,560	PE52C256.032	320,900
PE13C128.032	12,556	PE53C128.032	320,896
PE14C064.032	12,540	PE54C064.032	320,880
PE15C032.032	12,492	PE55C032.032	320,816
PE16C016.032	12,640	PE56C016.032	320,560
PE17C008.032	14,524	PE57C008.032	319,536
PE18C004.032	24,732	PE58C004.032	315,440
PE19C002.032	70,540	PE59C002.032	299,072
PE21C512.032	64,221	PE61C512.032	328,473
PE22C256.032	64,220	PE62C256.032	328,472
PE23C128.032	64,216	PE63C128.032	328,468
PE24C064.032	64,200	PE64C064.032	328,452
PE25C032.032	64,136	PE65C032.032	328,388
PE26C016.032	63,928	PE66C016.032	328,132
PE27C008.032	63,704	PE67C008.032	327,108
PE28C004.032	67,132	PE68C004.032	323,012
PE29C002.032	97,540	PE69C002.032	306,640
PE31C512.032	195,385	PE71C512.032	335,793
PE32C256.032	195,384	PE72C256.032	335,792
PE33C128.032	195,380	PE73C128.032	335,788
PE34C064.032	195,364	PE74C064.032	335,772
PE35C032.032	195,300	PE75C032.032	335,708
PE36C016.032	195,044	PE76C016.032	335,452
PE37C008.032	194,044	PE77C008.032	334,428
PE38C004.032	190,676	PE78C004.032	330,332
PE39C002.032	187,952	PE79C002.032	313,968

Table A.9.5 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 064

PE01C512.064	1,421	PE41C512.064	295,677
PE02C256.064	1,420	PE42C256.064	295,676
PE03C128.064	1,416	PE43C128.064	295,672
PE04C064.064	1,412	PE44C064.064	295,656
PE05C032.064	1,504	PE45C032.064	295,592
PE06C016.064	2,136	PE46C016.064	295,336
PE07C008.064	5,028	PE47C008.064	294,312
PE08C004.064	17,088	PE48C004.064	290,216
PE09C002.064	65,944	PE49C002.064	274,248
PE11C512.064	12,661	PE51C512.064	321,017
PE12C256.064	12,660	PE52C256.064	321,016
PE13C128.064	12,656	PE53C128.064	321,012
PE14C064.064	12,640	PE54C064.064	320,996
PE15C032.064	12,592	PE55C032.064	320,932
PE16C016.064	12,740	PE56C016.064	320,676
PE17C008.064	14,628	PE57C008.064	319,652
PE18C004.064	24,812	PE58C004.064	315,556
PE19C002.064	70,596	PE59C002.064	299,188
PE21C512.064	64,349	PE61C512.064	328,513
PE22C256.064	64,348	PE62C256.064	328,512
PE23C128.064	64,344	PE63C128.064	328,508
PE24C064.064	64,328	PE64C064.064	328,492
PE25C032.064	64,264	PE65C032.064	328,428
PE26C016.064	64,056	PE66C016.064	328,172
PE27C008.064	63,832	PE67C008.064	327,148
PE28C004.064	67,248	PE68C004.064	323,052
PE29C002.064	97,652	PE69C002.064	306,680
PE31C512.064	195,385	PE71C512.064	335,745
PE32C256.064	195,384	PE72C256.064	335,744
PE33C128.064	195,380	PE73C128.064	335,740
PE34C064.064	195,364	PE74C064.064	335,724
PE35C032.064	195,300	PE75C032.064	335,660
PE36C016.064	195,044	PE76C016.064	335,404
PE37C008.064	194,044	PE77C008.064	334,380
PE38C004.064	190,672	PE78C004.064	330,284
PE39C002.064	187,960	PE79C002.064	313,916

Table A.9.6 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 128

PE01C512.128	1,421	PE41C512.128	295,637
PE02C256.128	1,420	PE42C256.128	295,636
PE03C128.128	1,416	PE43C128.128	295,632
PE04C064.128	1,412	PE44C064.128	295,616
PE05C032.128	1,504	PE45C032.128	295,552
PE06C016.128	2,136	PE46C016.128	295,296
PE07C008.128	5,028	PE47C008.128	294,272
PE08C004.128	17,088	PE48C004.128	290,176
PE09C002.128	65,944	PE49C002.128	274,204
PE11C512.128	12,713	PE51C512.128	320,913
PE12C256.128	12,712	PE52C256.128	320,912
PE13C128.128	12,708	PE53C128.128	320,908
PE14C064.128	12,692	PE54C064.128	320,892
PE15C032.128	12,644	PE55C032.128	320,828
PE16C016.128	12,792	PE56C016.128	320,572
PE17C008.128	14,676	PE57C008.128	319,548
PE18C004.128	24,848	PE58C004.128	315,452
PE19C002.128	70,616	PE59C002.128	299,084
PE21C512.128	64,353	PE61C512.128	328,521
PE22C256.128	64,352	PE62C256.128	328,520
PE23C128.128	64,348	PE63C128.128	328,516
PE24C064.128	64,332	PE64C064.128	328,500
PE25C032.128	64,268	PE65C032.128	328,436
PE26C016.128	64,060	PE66C016.128	328,180
PE27C008.128	63,836	PE67C008.128	327,156
PE28C004.128	67,264	PE68C004.128	323,060
PE29C002.128	97,676	PE69C002.128	306,688
PE31C512.128	195,133	PE71C512.128	335,713
PE32C256.128	195,132	PE72C256.128	335,712
PE33C128.128	195,128	PE73C128.128	335,708
PE34C064.128	195,112	PE74C064.128	335,692
PE35C032.128	195,048	PE75C032.128	335,628
PE36C016.128	194,792	PE76C016.128	335,372
PE37C008.128	193,792	PE77C008.128	334,348
PE38C004.128	190,420	PE78C004.128	330,252
PE39C002.128	187,724	PE79C002.128	313,884

Table A.9.7 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 256

PE01C512.256	1,421	PE41C512.256	295,637
PE02C256.256	1,420	PE42C256.256	295,636
PE03C128.256	1,416	PE43C128.256	295,632
PE04C064.256	1,412	PE44C064.256	295,616
PE05C032.256	1,504	PE45C032.256	295,552
PE06C016.256	2,136	PE46C016.256	295,296
PE07C008.256	5,028	PE47C008.256	294,272
PE08C004.256	17,088	PE48C004.256	290,176
PE09C002.256	65,944	PE49C002.256	274,204
PE11C512.256	12,713	PE51C512.256	320,913
PE12C256.256	12,712	PE52C256.256	320,912
PE13C128.256	12,708	PE53C128.256	320,908
PE14C064.256	12,692	PE54C064.256	320,892
PE15C032.256	12,644	PE55C032.256	320,828
PE16C016.256	12,792	PE56C016.256	320,572
PE17C008.256	14,676	PE57C008.256	319,548
PE18C004.256	24,848	PE58C004.256	315,452
PE19C002.256	70,616	PE59C002.256	299,084
PE21C512.256	64,353	PE61C512.256	328,521
PE22C256.256	64,352	PE62C256.256	328,520
PE23C128.256	64,348	PE63C128.256	328,516
PE24C064.256	64,332	PE64C064.256	328,500
PE25C032.256	64,268	PE65C032.256	328,436
PE26C016.256	64,060	PE66C016.256	328,180
PE27C008.256	63,836	PE67C008.256	327,156
PE28C004.256	67,264	PE68C004.256	323,060
PE29C002.256	97,676	PE69C002.256	306,688
PE31C512.256	195,133	PE71C512.256	335,713
PE32C256.256	195,132	PE72C256.256	335,712
PE33C128.256	195,128	PE73C128.256	335,708
PE34C064.256	195,112	PE74C064.256	335,692
PE35C032.256	195,048	PE75C032.256	335,628
PE36C016.256	194,792	PE76C016.256	335,372
PE37C008.256	193,792	PE77C008.256	334,348
PE38C004.256	190,420	PE78C004.256	330,252
PE39C002.256	187,724	PE79C002.256	313,884

Table A.9.8 For Peppers

Compressed Planes Results
Image: Peppers.bin at Entropy Block size = 512

PE01C512.512	1,421	PE41C512.512	295,637
PE02C256.512	1,420	PE42C256.512	295,636
PE03C128.512	1,416	PE43C128.512	295,632
PE04C064.512	1,412	PE44C064.512	295,616
PE05C032.512	1,504	PE45C032.512	295,552
PE06C016.512	2,136	PE46C016.512	295,296
PE07C008.512	5,028	PE47C008.512	294,272
PE08C004.512	17,088	PE48C004.512	290,176
PE09C002.512	65,944	PE49C002.512	274,204
PE11C512.512	12,713	PE51C512.512	320,913
PE12C256.512	12,712	PE52C256.512	320,912
PE13C128.512	12,708	PE53C128.512	320,908
PE14C064.512	12,692	PE54C064.512	320,892
PE15C032.512	12,644	PE55C032.512	320,828
PE16C016.512	12,792	PE56C016.512	320,572
PE17C008.512	14,676	PE57C008.512	319,548
PE18C004.512	24,848	PE58C004.512	315,452
PE19C002.512	70,616	PE59C002.512	299,084
PE21C512.512	64,353	PE61C512.512	328,521
PE22C256.512	64,352	PE62C256.512	328,520
PE23C128.512	64,348	PE63C128.512	328,516
PE24C064.512	64,332	PE64C064.512	328,500
PE25C032.512	64,268	PE65C032.512	328,436
PE26C016.512	64,060	PE66C016.512	328,180
PE27C008.512	63,836	PE67C008.512	327,156
PE28C004.512	67,264	PE68C004.512	323,060
PE29C002.512	97,676	PE69C002.512	306,688
PE31C512.512	195,133	PE71C512.512	335,713
PE32C256.512	195,132	PE72C256.512	335,712
PE33C128.512	195,128	PE73C128.512	335,708
PE34C064.512	195,112	PE74C064.512	335,692
PE35C032.512	195,048	PE75C032.512	335,628
PE36C016.512	194,792	PE76C016.512	335,372
PE37C008.512	193,792	PE77C008.512	334,348
PE38C004.512	190,420	PE78C004.512	330,252
PE39C002.512	187,724	PE79C002.512	313,884

Table A.9.9 For Peppers

Entropy Results Table A.10.1 (part 1 of 2)

family: Airplane, at block = 002 Entropy without cost = 3.948221, with cost = 4.448221
family: Airplane, at block = 004 Entropy without cost = 4.098521, with cost = 4.223521
family: Airplane, at block = 008 Entropy without cost = 4.151658, with cost = 4.182908
family: Airplane, at block = 016 Entropy without cost = 4.167998, with cost = 4.175810
family: Airplane, at block = 032 Entropy without cost = 4.173326, with cost = 4.175280
family: Airplane, at block = 064 Entropy without cost = 4.174756, with cost = 4.175244
family: Airplane, at block = 128 Entropy without cost = 4.175361, with cost = 4.175483
family: Airplane, at block = 256 Entropy without cost = 4.177244, with cost = 4.177274
family: Airplane, at block = 512 Entropy without cost = 4.177244, with cost = 4.177251

family: Angle512, at block = 002 Entropy without cost = 3.215194, with cost = 3.715194
family: Angle512, at block = 004 Entropy without cost = 3.276620, with cost = 3.401620
family: Angle512, at block = 008 Entropy without cost = 3.299109, with cost = 3.330359
family: Angle512, at block = 016 Entropy without cost = 3.318017, with cost = 3.325830
family: Angle512, at block = 032 Entropy without cost = 3.335595, with cost = 3.337548
family: Angle512, at block = 064 Entropy without cost = 3.311880, with cost = 3.312368
family: Angle512, at block = 128 Entropy without cost = 3.311880, with cost = 3.312002
family: Angle512, at block = 256 Entropy without cost = 3.311880, with cost = 3.311910
family: Angle512, at block = 512 Entropy without cost = 3.311880, with cost = 3.311887

family: Baboon, at block = 002 Entropy without cost = 6.203863, with cost = 6.703863
family: Baboon, at block = 004 Entropy without cost = 6.256109, with cost = 6.381109
family: Baboon, at block = 008 Entropy without cost = 6.269318, with cost = 6.300568
family: Baboon, at block = 016 Entropy without cost = 6.272431, with cost = 6.280244
family: Baboon, at block = 032 Entropy without cost = 6.273678, with cost = 6.275631
family: Baboon, at block = 064 Entropy without cost = 6.274953, with cost = 6.275442
family: Baboon, at block = 128 Entropy without cost = 6.276119, with cost = 6.276241
family: Baboon, at block = 256 Entropy without cost = 6.276217, with cost = 6.276248
family: Baboon, at block = 512 Entropy without cost = 6.276217, with cost = 6.276225

family: Bill, at block = 002 Entropy without cost = 3.578019, with cost = 4.078019
family: Bill, at block = 004 Entropy without cost = 3.707076, with cost = 3.832076
family: Bill, at block = 008 Entropy without cost = 3.766484, with cost = 3.797734
family: Bill, at block = 016 Entropy without cost = 3.790062, with cost = 3.797874
family: Bill, at block = 032 Entropy without cost = 3.805072, with cost = 3.807025
family: Bill, at block = 064 Entropy without cost = 3.813501, with cost = 3.813989
family: Bill, at block = 128 Entropy without cost = 3.816575, with cost = 3.816697
family: Bill, at block = 256 Entropy without cost = 3.816575, with cost = 3.816605
family: Bill, at block = 512 Entropy without cost = 3.816575, with cost = 3.816582

family: Catt, at block = 002 Entropy without cost = 4.760126, with cost = 5.260126
family: Catt, at block = 004 Entropy without cost = 4.861423, with cost = 4.986423
family: Catt, at block = 008 Entropy without cost = 4.899103, with cost = 4.930353
family: Catt, at block = 016 Entropy without cost = 4.914380, with cost = 4.922193
family: Catt, at block = 032 Entropy without cost = 4.922843, with cost = 4.924796
family: Catt, at block = 064 Entropy without cost = 4.930822, with cost = 4.931311
family: Catt, at block = 128 Entropy without cost = 4.941182, with cost = 4.941304
family: Catt, at block = 256 Entropy without cost = 4.936584, with cost = 4.936614
family: Catt, at block = 512 Entropy without cost = 4.936584, with cost = 4.936591

Entropy Results Table A.10.1 (part 2 of 2)

family: Cryistal, at block = 002 Entropy without cost = 4.002477, with cost = 4.502477
family: Cryistal, at block = 004 Entropy without cost = 4.133246, with cost = 4.258246
family: Cryistal, at block = 008 Entropy without cost = 4.195449, with cost = 4.226699
family: Cryistal, at block = 016 Entropy without cost = 4.234078, with cost = 4.241890
family: Cryistal, at block = 032 Entropy without cost = 4.257208, with cost = 4.259161
family: Cryistal, at block = 064 Entropy without cost = 4.274438, with cost = 4.274926
family: Cryistal, at block = 128 Entropy without cost = 4.283731, with cost = 4.283853
family: Cryistal, at block = 256 Entropy without cost = 4.317871, with cost = 4.317901
family: Cryistal, at block = 512 Entropy without cost = 4.317871, with cost = 4.317878

family: Larry512, at block = 002 Entropy without cost = 3.677630, with cost = 4.177630
family: Larry512, at block = 004 Entropy without cost = 3.827974, with cost = 3.952974
family: Larry512, at block = 008 Entropy without cost = 3.891644, with cost = 3.922894
family: Larry512, at block = 016 Entropy without cost = 3.937508, with cost = 3.945320
family: Larry512, at block = 032 Entropy without cost = 3.959941, with cost = 3.961894
family: Larry512, at block = 064 Entropy without cost = 3.968214, with cost = 3.968702
family: Larry512, at block = 128 Entropy without cost = 3.971731, with cost = 3.971853
family: Larry512, at block = 256 Entropy without cost = 3.971949, with cost = 3.971979
family: Larry512, at block = 512 Entropy without cost = 3.971949, with cost = 3.971956

family: LenaY, at block = 002 Entropy without cost = 4.330739, with cost = 4.830739
family: LenaY, at block = 004 Entropy without cost = 4.446963, with cost = 4.571963
family: LenaY, at block = 008 Entropy without cost = 4.485832, with cost = 4.517082
family: LenaY, at block = 016 Entropy without cost = 4.506505, with cost = 4.514317
family: LenaY, at block = 032 Entropy without cost = 4.516256, with cost = 4.518209
family: LenaY, at block = 064 Entropy without cost = 4.522621, with cost = 4.523109
family: LenaY, at block = 128 Entropy without cost = 4.528466, with cost = 4.528588
family: LenaY, at block = 256 Entropy without cost = 4.530852, with cost = 4.530883
family: LenaY, at block = 512 Entropy without cost = 4.533624, with cost = 4.533631

family: Peppers, at block = 002 Entropy without cost = 4.815100, with cost = 5.315100
family: Peppers, at block = 004 Entropy without cost = 4.869717, with cost = 4.994717
family: Peppers, at block = 008 Entropy without cost = 4.889426, with cost = 4.920676
family: Peppers, at block = 016 Entropy without cost = 4.896165, with cost = 4.903978
family: Peppers, at block = 032 Entropy without cost = 4.904872, with cost = 4.906826
family: Peppers, at block = 064 Entropy without cost = 4.906537, with cost = 4.907025
family: Peppers, at block = 128 Entropy without cost = 4.906869, with cost = 4.906991
family: Peppers, at block = 256 Entropy without cost = 4.906869, with cost = 4.906899
family: Peppers, at block = 512 Entropy without cost = 4.906869, with cost = 4.906877

Entropy Table Summary A.10.2

	Airplane:		Angle512:		Baboon:	
blk	without	w-cost	without	w-cost	without	w-cost
002	3.948221	4.448221	3.215194	3.715194	6.203863	6.703863
004	4.098521	4.223521	3.276620	3.401620	6.256109	6.381109
008	4.151658	4.182908	3.299109	3.330359	6.269318	6.300568
016	4.167998	4.175810	3.318017	3.325830	6.272431	6.280244
032	4.173326	4.175280	3.335595	3.337548	6.273678	6.275631
064	4.174756	4.175244	3.311880	3.312368	6.274953	6.275442
128	4.175361	4.175483	3.311880	3.312002	6.276119	6.276241
256	4.177244	4.177274	3.311880	3.311910	6.276217	6.276248
512	4.177244	4.177251	3.311880	3.311887	6.276217	6.276225

	Bill:		Cat:		Cryistal:	
blk	without	w-cost	without	w-cost	without	w-cost
002	3.578019	4.078019	4.760126	5.260126	4.002477	4.502477
004	3.707076	3.832076	4.861423	4.986423	4.133246	4.258246
008	3.766484	3.797734	4.899103	4.930353	4.195449	4.226699
016	3.790062	3.797874	4.914380	4.922193	4.234078	4.241890
032	3.805072	3.807025	4.922843	4.924796	4.257208	4.259161
064	3.813501	3.813989	4.930822	4.931311	4.274438	4.274926
128	3.816575	3.816697	4.941182	4.941304	4.283731	4.283853
256	3.816575	3.816605	4.936584	4.936614	4.317871	4.317901
512	3.816575	3.816582	4.936584	4.936591	4.317871	4.317878

	Larry512:		LenaY:		Peppers:	
blk	without	w-cost	without	w-cost	without	w-cost
002	3.677630	4.177630	4.330739	4.830739	4.815100	5.315100
004	3.827974	3.952974	4.446963	4.571963	4.869717	4.994717
008	3.891644	3.922894	4.485832	4.517082	4.889426	4.920676
016	3.937508	3.945320	4.506505	4.514317	4.896165	4.903978
032	3.959941	3.961894	4.516256	4.518209	4.904872	4.906826
064	3.968214	3.968702	4.522621	4.523109	4.906537	4.907025
128	3.971731	3.971853	4.528466	4.528588	4.906869	4.906991
256	3.971949	3.971979	4.530852	4.530883	4.906869	4.906899
512	3.971949	3.971956	4.533624	4.533631	4.906869	4.906877

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