What is claimed is:

1. A method comprising:

defining a plurality of minimal boxes around proximate groups of color samples;

repeatedly merging pairs of said boxes to form a first merged box that meets a target bit threshold and that increases a total merged box color space volume by a least amount of color space volume, where color space volume corresponds to a three dimensional volume determined based on color coordinates for three colors;

merging another pair of said boxes to form a second merged box;

selecting a first and second representative colors of a color space;

identifying, for a first merged box, a first set of color values closest to the first representative color;

identifying, for the second merged box, a second set of color values closest to the second representative color;

and encoding said first set separately from said second set to compress color data.

2. The method of claim 1 further including:

determining a base color value for the first set and a base color value for the second set; and

encoding each set using its base color value.

3. The method of claim 2 including merging the smallest box with a neighbor that gives the smallest volume compared to merging with any other neighbor and merging iteratively until the encoding cost falls below a threshold.

4. The method of claim 2 including encoding residuals for each value in a non-empty cell relative to the base color value for that cell.

5. The method of claim 2 including subtracting a minimum color value from all color values in a group to be encoded to form color value components for each channel.

6. The method of claim 4 including finding a largest color value component of each channel.

7. The method of claim 5 including transforming color encoding into a single integer cost using the largest component per channel.

8. The method of claim 2 including encoding all channels for a color space together.

9. The method of claim 2 including encoding without multiplication or division.

10. The method of claim 2 including assigning widths to a set of numbers so that division is implemented with a constant over said set.

11. The method of claim 2 including encoding multiple values of the same color component together.

12. One or more non-transitory computer readable media storing instructions to perform a sequence comprising:

defining a plurality of minimal boxes around proximate groups of color samples;

repeatedly merging pairs of said boxes to form a first merged box that meets a target bit threshold and that increases a total merged box color space volume by a least amount of color space volume, where color space volume corresponds to a three dimensional volume determined based on color coordinates for three colors;

merging another pair of said boxes to form a second merged box;

selecting a first and second representative colors of a color space;

identifying, for a first merged box, a first set of color values closest to the first representative color;

identifying, for the second merged box, a second set of color values closest to the second representative color; and

encoding said first set separately from said second set to compress color data.

13. The media of claim 12 said sequence including:

determining a base color value for the first set and a base color value for the second set; and encoding each set using its base color value.

14. The media of claim 13, said sequence including merging the smallest box with a neighbor that gives the smallest volume compared to merging with any other

neighbor and merging iteratively until the encoding cost falls below a threshold.

15. The media of claim 13, said sequence including encoding residuals for each value in a non-empty cell relative to the base color value for that cell.

16. The media of claim 13, said sequence including encoding all channels for a color space together.

17. The media of claim 13, said sequence of including encoding without multiplication or division.

18. The media of claim 13, said sequence including assigning widths to a set of numbers so that division is implemented with a constant over said set.

19. The media of claim 13, said sequence including encoding multiple values of the same color component together.

20. An apparatus comprising:

a processor to define a plurality of minimal boxes around proximate groups of color samples, repeatedly merge pairs of said boxes to form a first merged box that meets a target bit threshold and that increases a total merged box color space volume by a least amount of color space volume, where color space volume corresponds to a three dimensional volume determined based on color coordinates for three colors, merge another pair of said boxes to form a second merged box, select a first and second representative colors of a color space, identify, for a first merged box, a first set of color values closest to the first representative color, identify, for the second merged box, a second set of color values closest to the second representative color, encode said first set separately from said second set to compress color data; and

a memory coupled to said processor. and merging iteratively until the encoding cost falls below a threshold.

21. The apparatus of claim 20 wherein:

said processor to determine a base color value for the first set and a base color value for the second set, and encode each set using the base color value.

22. The apparatus of claim 21, said processor to merge the smallest box with a neighbor that gives the smallest volume compared to merging with any other

neighbor and merging iteratively until the encoding cost falls below a threshold.

23. The apparatus of claim 21, said processor to encode residuals for each value in a non-empty cell relative to the base color value for that cell.

24. The apparatus of claim 21, said processor to encode all channels for a color space together.