

Re: How much lossless compression is possible in images?

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>So how much compression could you get?

I don't think you have to wait for $BB(10^{10^7})$ if you accept a good compression that halts early, given that the ideal algorithm for that image is consise, its a heuristic to expect it to run mostly useful cycles, even on the polynomial side of exponential complexity. Besides you can't tell what $BB(x)$ $x > 20$ is, you have make some heuristic decision when to halt. (of course in your ideal no complexity limits you can tell the value of BB).

what compression? on half of the images (99.9999999999% of 4GB images are random pixels) you will get none. the algorithms number to match the data will just be a UTM copy algorithm with the 4GB input string hard wired.

Program(487948744894984984 .. 4mb long) = 4 mb image

on the other half of images (99.9999999999% of 4GB images are random pixels), you will save a few bytes.

of the 0.00000000000001% of images with detail, probably quite good, maybe 10 to 100 times better than jpeg, 10% of original image size for photos. (guess). pictures of cities with intrinsic detail should compress well under a 'selectable algorithm'.

Herc