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(54) Title: METHOD AND SYSTEM FOR IMAGE FORMAT CONVERSION

(57) Abstract

A method and system are provided for converting image data between planar format and a chunky format. A barrel shifter sorts the image bytes by color plane for output to a plurality of memory cells. Two addresses of each memory cell are not interconnected and function as a set of selection lines, whose binary values determine the number of positions that the data stored in the memory cells are shifted in response to the action of the barrel shifter. The sorted bytes are stored according to color format in the remaining, interconnected addresses of the memory cells. When the barrel shifter does not shift the bytes in a word, cyan bytes are stored in the memory cells. When the barrel shifter shifts the word one byte position, magenta bytes are output to the memory cells. Yellow and black bytes, respectively, are output for shifts of two bytes and three bytes, respectively. Each color plane is therefore stored in a separate memory cell and the chunky format data are converted to a planar format. This planar data may then be output to a printer. Further, the invention is bidirectionally operative. Thus, color-sorted bytes in planar format may be input to the barrel shifter and sorted to output the image data in chunky format.

