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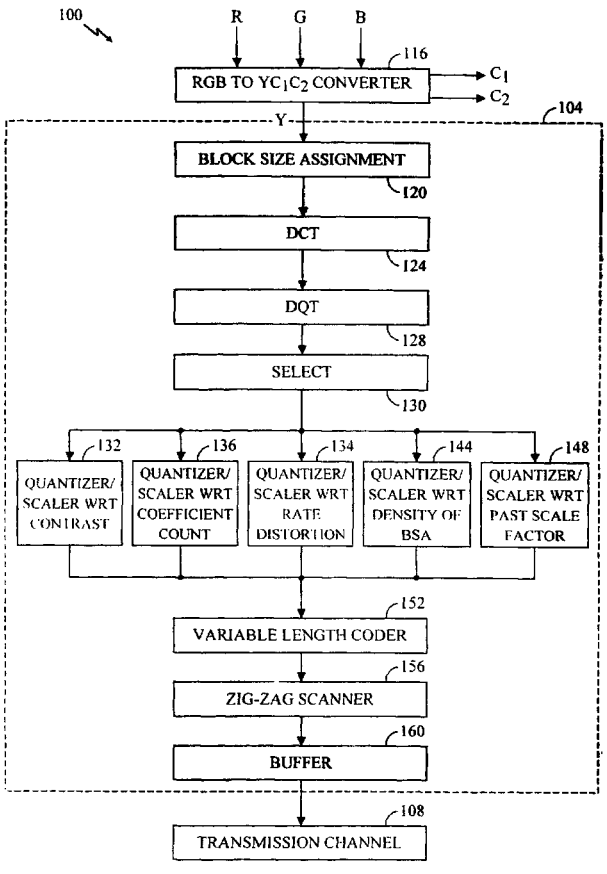
(54) Title: QUALITY BASED IMAGE COMPRESSION



(57) Abstract: A system and method for quality-based image compression utilizing adaptively sized blocks and sub-blocks of discrete cosine transform coefficient data and a quality based quantization scale factor (100) is claimed. A block size assignment element (120) in an encoder element (104) selects the block or sub-block of an input block of pixel data to be processed. Blocks with variances larger than a threshold are subdivided, while blocks with variances smaller than a threshold are not subdivided. A transform element transforms the pixel values of the selected blocks into the frequency domain (124). The frequency domain values are quantized (132, 134, 136, 144, 148) either on a block by block basis or a frame by frame basis utilizing a scale factor that correlates with the quality of the image. The data is then serialized and coded (152) in preparation for transmission.

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