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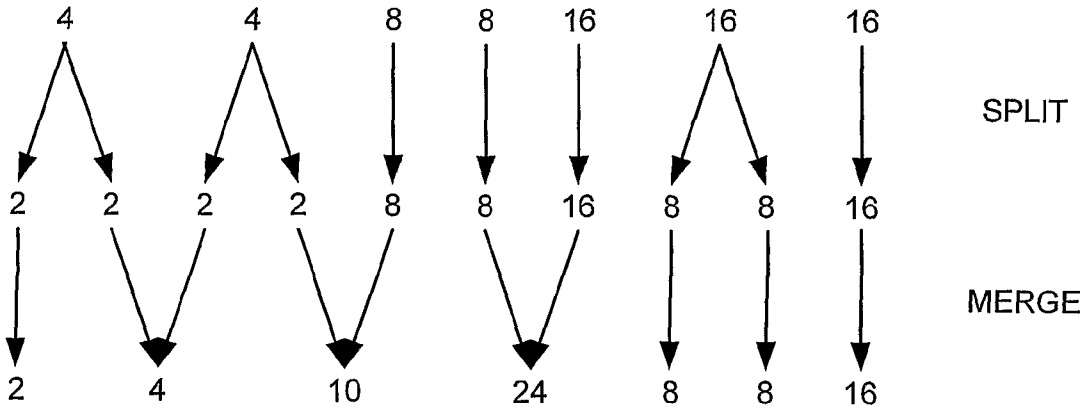
(54) Title: FREQUENCY SEGMENTATION TO OBTAIN BANDS FOR EFFICIENT CODING OF DIGITAL MEDIA



(57) Abstract: Frequency segmentation is important to the quality of encoding spectral data. Segmentation involves breaking the spectral data into units called sub-bands or vectors. Homogeneous segmentation may be suboptimal. Various features are described for providing spectral data intensity dependent segmentation. Finer segmentation is provided for regions of greater spectral variance and coarser segmentation is provided for more homogeneous regions. Sub-bands which have similar characteristics may be merged with very little effect on quality, whereas sub-bands with highly variable data may be better represented if a sub-band is split. Various methods are described for measuring tonality, energy, or shape of a sub-band. These various measurements are discussed in light of making decisions of when to split or merge sub-bands to provide variable frequency segmentation.

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