ABSTRACT

A DEVICE AND PROCESS FOR ENCODING AUDIO DATA

An MPEG-1 layer 3 audio encoder, including a scalefactor generator for determining first scalefactors for encoding a block of audio data if a temporal masking transient is not detected in said block of audio data; and for selecting the maximum of said scalefactors for encoding said block of audio data if a temporal masking transient is detected in said block of audio data to enable greater compression of said audio data. Increases in quantization error due to use of the maximum scalefactor are pre-masked or post-masked by the temporal masking transient. In cases where the last portion of a block includes a temporal masking transient that masks the preceding portions of the block, the maximum scalefactor is only used to encode the block if the resulting increase in quantization error is less than 30% of the quantization error for the block.