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% Scalable TWIN-VQ program implementation in MATLAB.  
%-----  
% This program encodes monoaural audio .wav files using the TWIN-VQ  
% algorithm. The program assumes that the input .wav file is single channel  
% audio sampled at 44100 samples per second and with 16 bits per sample.  
% However, the program can be modified to work with different sampling  
% rates. The program can encode and decode in the range of 6 - 64 kbps.  
%  
% The main encoding program is encode_tvq.m.  
% Function call: encode_tvq(<wave file>, bitrate)  
% Example: encode_tvq('..\original_audio\bene.wav',8000);  
%  
% Note that the bitrate is always in bits per sample and not kilo bits per  
% sample.  
%  
% The program encodes the audio at the appropriate bitrate and stores the  
% indices and side information as a .MAT file.  
%  
% The main decoding program is decode_tvq.m  
% Function call: decode_tvq  
%  
% This program opens the appropriate .MAT file and reconstructs the audio  
% from it. Before reconstructing the audio sequence the program prompts the  
% user to input the reconstruction bitrate in the range between the 6 kbps  
% and the maximum encoded bitrate.  
%
```