

# Abstract

H.264 is a popular video coding standard. Most of the smart phones support it. In this project, we discuss and analyze the algorithms and performance of inter prediction. For the inter prediction, each frame is divided into  $16 \times 16$  macroblocks (MB). We use the temporal correlation to predict the current encoding MB. That is, we try to find the best MB in the previous frame. The best MB means it has the least mean squared error or the least summation of absolute distortion (SAD) value. In this project, we find the relation between the residual/motion vector and the block size/ search range.