IMPROVED ADVANCED MOTION VECTOR PREDICTION SCHEME FOR SURVEILLANCE VIDEO CODING

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INTRODUCTION

➢ Propose:
  ✓ Background Modeling and Updating.
    • A background frame is modeled from original frames and then encoded as long-term reference[1][2].
  ✓ Recalculate MVP and Reconstruct MVP Candidate List.
    • Record PUs which reference BG-frame(i.e., PU_{bg})
    • Set a search area, find the best texture matching Pus(i.e., PU_{bg3}) in recorded PUS, and recalculate MVP.
    • Adopt zero MV and the new calculated MVP as final MVP candidates.

EXPERIMENTAL RESULTS

➢ Experimental Settings:
  ✓ Four 720x576(sd) and three 1920x1080(hd) videos[3][4].
  ✓ Low-delay configuration with common test conditions[3].

CONCLUSION

➢ An improved AMVP scheme for surveillance video coding is proposed.
➢ The scheme takes advantage of the correlations among the spatial PUs.
➢ Achieved 0.17% bit saving compared to HM12.0-S.

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