Mode Conversion for H.264 to MPEG–2 Video Transcoder

Author(s):
- Sandro Moiron (I.T. – Instituto de Telecomunicações, Portugal)
- Sérgio Faria (Instituto Politécnico de Leiria, Portugal)
- Pedro Assunção (Instituto Politécnico de Leiria, Portugal)
- Vitor Silva (Universidade de Coimbra, Portugal)
- António Navarro (Universidade de Aveiro, Portugal)

Abstract:
This paper proposes an efficient method for transcoding compressed video from H.264/AVC to MPEG–2. This transcoder aims at maintaining backward compatibility between these two standards which is an important feature in modern communication systems such as WiMAX or xDSL, where customer demand for high-quality of diversified rich multimedia contents continues to impose great challenges to the video delivery systems. Since both standards use a block based approach for intra and interframe coding, the proposed transcoder explores their similarities in order to reduce the computational complexity measured as processing time. The experimental results show a computational complexity reduction up to 60% without quality loss when compared with a reference transcoder comprised of a full decoder–encoder cascade.