REAL-TIME ENCODING OF VIDEO SEQUENCE EMPLOYING TWO ENCODERS AND STATISTICAL ANALYSIS

ABSTRACT

Method, system and computer program product are provided for adaptively encoding in hardware, software or a combination thereof a sequence of video frames in real-time. A first encoding subsystem (510) analyzes the sequence of video frames (501) to derive information on at least one characteristic thereof, such as motion statistics, non-motion statistics, scene change statistics, or scene fade statistics. The gathered information may be either an intraframe characteristic or an interframe characteristic. A control processor (520) is coupled to the first encoding subsystem (510) to automatically analyze the gathered information in real time and dynamically produce a set of control parameters. A second encoding subsystem (540), coupled to the control processor (520), then encodes each frame of the sequence of video frames (501) employing the corresponding set of control parameters.

Fig 7