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ABSTRACT OF THE DISCLOSURE

APPARATUS AND METHOD FOR FORMULATING AN INTERACTIVE TV SIGNAL

Apparatus and a method for formatting executable codes and data, defining interactive applications, with video and audio program material, for reliable and convenient access includes compressing (18, 21) audio and video programs according to a protocol such as MPEG. The compressed audio and video (A/V) programs are segmented (19, 22) into transport packets and identified by first and second service identifiers $SCID_{Ai}$ and $SCID_{Vi}$. Interactive application programs associated with A/V programs are compiled (10) into functional modules and condensed. Further modules designated "Signal modules", are generated to condition respective receivers to suspend or resume execution of an interactive application. Signal modules are multiplexed in the packet stream to appropriately reprogram respective receivers on the occurrence of such changes in received signal components. A module may be executable software or data. A module includes code/data and a header. The code/data portion of each module has cyclic redundancy coding (CRC) check bits appended to the module. Respective modules are segmented (14) into transport packets. The transport packets are formed into transmission units comprising an integer number of code/data transport packets and a header transport packet. Video packets, audio packets and module packets are subsequently time division multiplexed (16) for transmission.

Fig 1

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