Video Data: Bit Precision, Codecs, Media Servers, and Streaming
Humax Co., Ltd.

Initial Bidding Guidance: Mid-to-High 7 Figures
With a 2003 priority date, the disclosed portfolio describes apparatus, systems and methods covering video codec, bitstream precision and image display, including:

Abstract (US 7,924,923)
Provided are a motion estimation device and method adaptive to change in illumination. The motion estimation method includes the steps of: generating a current frame pattern block and a reference frame pattern block for a reference frame block; calculating the sum of absolute differences (SAD) for candidate pattern blocks and determining the candidate pattern block corresponding to the SAD satisfying a predetermined condition among the calculated SAD as a motion vector; encoding the current frame block, and adding flag information indicating the addition of a mean pixel value applied to the encoded current frame block and identification information on the encoding mode as header information corresponding to the encoded current frame block.

Abstract (US 8,687,704)
A bitstream decoding apparatus and a method thereof, where the bitstream decoding apparatus includes: a decoder forming unit, configured to generate and output CSCI control information and connection control information by using partial decoder descriptions stored in a description storing unit; and a decoding unit, which selectively loads a plurality of functional units included in a toolbox by using the CSCI control information and the connection control information to decode a bitstream to video data.

Abstract (US 8,786,775)
Provided are a display system and a method of outputting an image signal corresponding to a display panel. The display system includes an image processor converting original video data input from a video signal converting unit into converted video data corresponding to a recognized output standard and outputting the converted video data; and a display unit including a memory storing characteristic information and serving to display the converted video data as visual information. Here, the image processor reads out the characteristic information from the memory to recognize the output standard. Accordingly, it is possible to adaptively cope with the case where only the display panel is replaced for the purpose of improvement in resolution, etc.

Abstract (US 8,839,295)
There are disclosed a method of providing a content management list which enables various contents to integrally used and managed and an apparatus for performing the same. A method of providing a content management list including associated media is performed by a content management list providing apparatus capable of accessing one or more local contents over a network and includes searching for information of an associated local content associated with a channel program included in Electronic Program Guide (EPG) information of a broadcasting program and displaying the searched information of the associated local content in such a way as to have an association with air time of the channel program of the content management list. Accordingly, a user can plan to use various contents more efficiently without the need to search for all available contents in order to directly check associated content and use the associated content.
Abstract (US 8,839,334)
The method for controlling interface according to one embodiment of the present invention comprises the steps of: detecting the state of connection with one or more sink devices and one or more source devices which are connected to input and output ports of a multimedia interface module; identifying one or more operation modes available for the detected connection state; and transmitting device information of the one or more sink devices to the one or more source devices, the device information being selectively edited in accordance with a requested operation mode among the identified operation modes. Therefore, various operation modes such as Through, Convert, Switch, Mix, Distribute, Duplicate and Exchange can be chosen for effective operation, thereby enhancing the convenience of the user and increasing the performance of interface between the sink devices and source devices.

Abstract (US 9,042,439)
A method of setting an order of reference frames for multi-view coding performed by one or more processors. The method includes selecting one or more frames of the same kind that have a same-view relation with said current frame and have an inter-view relation with a frame of the same kind, which is encoded or decoded immediately before; and encoding or decoding the current frame by making reference to the selected one or more kind. Further, the one or more frames of the same kind is a P frame.

Forward Citing Companies: Apple, Canon, Comcast, Hitachi, IBM, Kyocera, LG, Mitsubishi, NEC, Nikon, Nokia, NVIDIA, Panasonic, Qualcomm, Samsung, Sharp

Earliest Priority Date: 02-21-2003

Representative Claims:
US 7,924,923 – Claim #1
A motion estimation method adaptive to change in illumination, comprising the steps of: (a) generating a current frame pattern block for a current frame block and a reference frame pattern block for a reference frame block; (b) calculating the sum of absolute differences (SAD) for candidate pattern blocks corresponding to the current frame pattern block among reference frame pattern blocks and determining each candidate pattern block corresponding to the SAD satisfying a predetermined condition among the calculated SAD as a motion vector; (c) encoding the current frame block, by generating a residual signal using a difference signal between the candidate pattern block corresponding to the motion vector and the current frame pattern block then performing discrete cosine transform and quantization to the residual signal with a predetermined encoding mode; and (d) adding flag information indicating the addition of a mean pixel value applied to the encoded current frame block and identification information on the encoding mode as header information corresponding to the encoded current frame block; wherein the addition of a mean pixel value to be applied to the current frame block is identified by the flag information, wherein step (a) includes the steps of: calculating a mean brightness value of the current frame block and a mean brightness value of the reference frame block; and generating the current frame pattern block by subtracting the mean brightness value of the current frame block from brightness values of the current frame block and generating the reference frame pattern blocks by subtracting the mean brightness value of the reference frame block from brightness values of the reference frame block.
US 8,687,704 – Claim #1
A decoding apparatus, comprising: a description storing unit configured to store partial decoder descriptions; a description decoder configured to receive a decoder description that includes a new partial decoder description and update information for one of the stored partial decoder descriptions, the update information including an identifier for identifying the stored partial decoder description to be updated, store the new partial decoder description in the description storing unit, and update the stored partial decoder description according to the received update information and the identifier; a decoder forming unit configured to generate and output connection control information by using the new and updated partial decoder descriptions stored in the description storing unit; and a decoding unit configured to selectively load a plurality of functional units included in a toolbox by using the connection control information, and direct the functional units to perform a predetermined process in an order according to the connection control information, wherein the connection control information identifies the plurality of functional units to be selectively loaded by the decoding unit and specifies an order of processing the plurality of functional units by the decoding unit.

US 9042439 – Claim #1
A method of setting an order of reference frames for multi-view coding performed by a plurality of processors, the method comprising: selecting, by the plurality of processors, one or more first frames of the same kind that have a same-view relation with a current frame, the one or more first frames being encoded or decoded prior to the current frame by a processor used to encode or decode the current frame; selecting, by the plurality of processors, one or more second frames of the same kind having an inter-view relation with a specific frame of the one or more first frames, the specific frame being encoded or decoded immediately before the current frame by the processor used to encode or decode the current frame; and encoding or decoding, by the plurality of processors, the current frame by making direct reference, with respect to any of the frames of the same kind as the current frame, to the selected one or more first frames and the selected one or more second frames, where the current frame is one of a plurality of frames that are generated by a plurality of cameras in a temporal order of an I frame, a first B frame, a second B frame, and a P frame, the plurality of frames being encoded or decoded in an order of the I frame, the P frame, the first B frame, and the second B frame about a time axis.

Contact:
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