

AMTC IP Coverage

Hotel VOD System Transmitting Media to In-Room Users Yurt '992 Claim 1

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Patent 5,132,992 Claim 1:

1. A transmission system for providing information to be transmitted to remote locations, the transmission system comprising:

library means for storing items containing information;

identification encoding means for retrieving the information in the items from the library means and for assigning a unique identification code to the retrieved information;

conversion means, coupled to the identification encoding means, for placing the retrieved information into a predetermined format as formatted data;

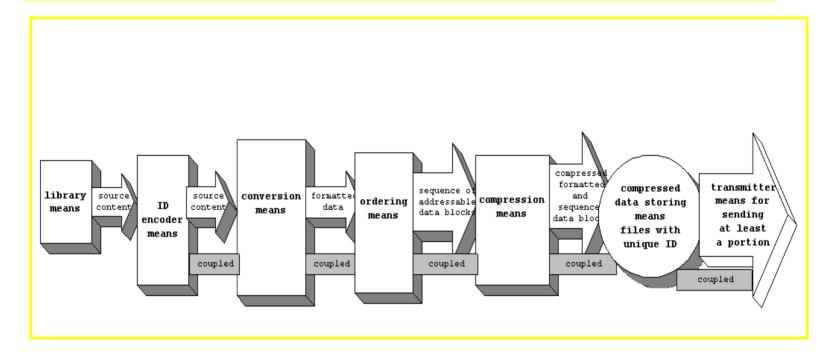
ordering means, coupled to the conversion means, for placing the formatted data into a sequence of addressable data blocks;

compression means, coupled to the ordering means, for compressing the formatted and sequenced data blocks;

compressed data storing means, coupled to the data compression means, for storing as files the compressed, sequenced data blocks received from the data compression means with the unique identification code assigned by the identification encoding means; and

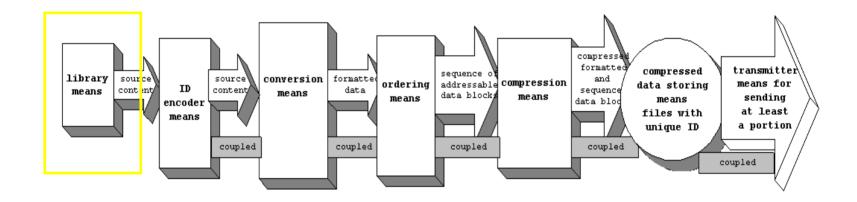
transmitter means, coupled to the compressed data storing means, for sending at least a portion of one of the files to one of the remote locations.

A transmission system for providing information to be transmitted to remote locations, the transmission system comprising:



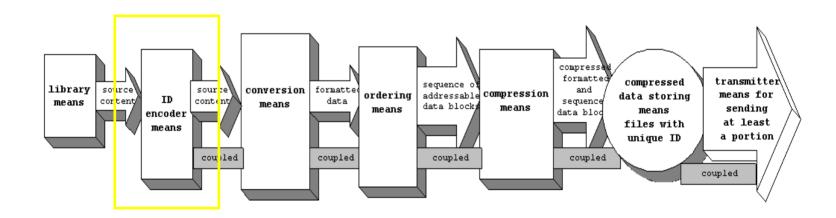
A hotel video on demand system receiving media (e.g., movies) from content providers and subsequently delivering media to in-room users is an example of a transmission system for providing information to be transmitted to remote locations.

library means for storing items containing information :



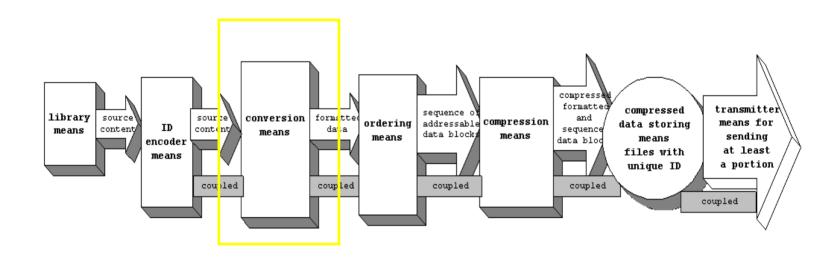
Prior to distribution to the in-room users, media is digitized and compressed by an encoding lab acting on behalf of the content providers. The encoding lab receives physical media (e.g., videotape) from the content providers. Each of these content providers maintains a library in which this physical media is stored. Additionally, the encoding lab may maintain its own library of media. These libraries are an example of a library means for storing items containing information.

identification encoding means for retrieving the information in the items from the library means and for assigning a unique identification code to the retrieved information:



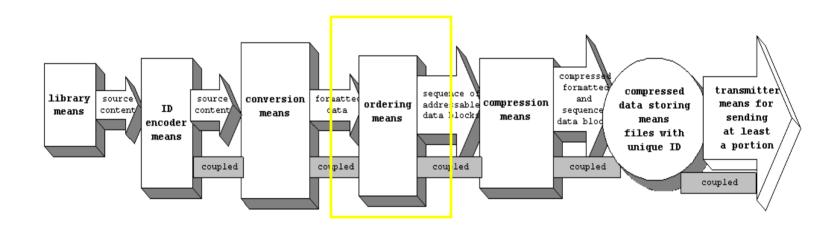
A tape operator(s) retrieves the physical media from the library to be encoded. A unique file name will be used to identify the encoded media on a server after it has been encoded. The tape operator(s) and encoding software are one example of an identification encoding means for retrieving information from the library means and for assigning a unique identification code to the retrieved information.

conversion means, coupled to the identification encoding means, for placing the retrieved information into a predetermined format as formatted data;



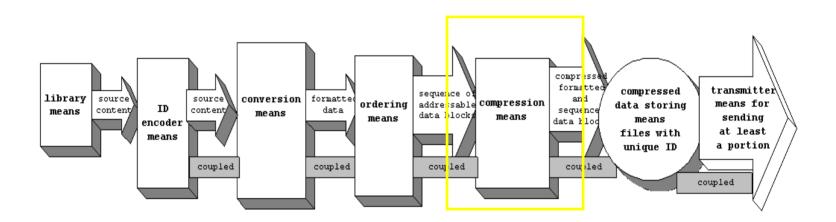
Physical media (e.g., a videotape) is placed in a tape player (i.e., an input receiver) where it is output from the player in either a digital or analog form. If in an analog form, the signal is applied to an analog input and converted to a standard digital format (such as an "AVI" file format) in an analog-digital converter. If in a digital form, the signal is input to a digital formatter and converted to a predetermined format (such as an "AVI" file format). The analog and/or digital receivers, converters, and formatters represent examples of a conversion means for placing retrieved information into a predetermined format as formatted data.

ordering means, coupled to the conversion means, for placing the formatted data into a sequence of addressable data blocks:



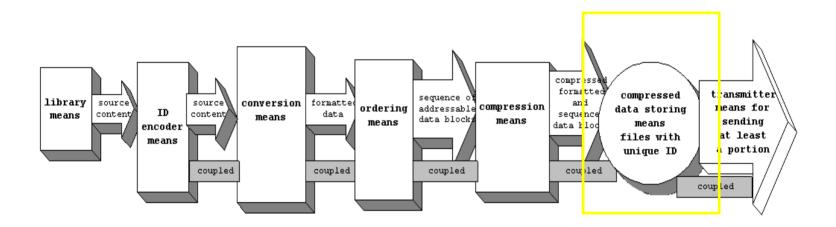
Video encoding methods organize frames into sequences of frames (data blocks) prior to compression. These frames are compressed and assigned relative time markers so that they are addressable by presentation time. The portion of the encoder that organizes the frames into sequences by assigning relative time markers (e.g., presentation time) is an example of an ordering means for placing the formatted data into a sequence of addressable data blocks.

compression means, coupled to the ordering means, for compressing the formatted and sequenced data blocks;



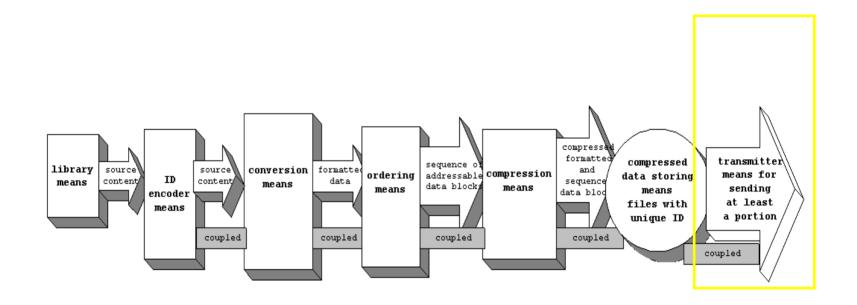
Video encoders, such as MPEG-2 encoders, compress video by operating on individual video frames and sequences of video frames. MPEG-2 encoders are examples of compression means.

compressed data storing means, coupled to the data compression means, for storing as files the compressed, sequenced data blocks received from the data compression means with the unique identification code assigned by the identification encoding means; and



Once compressed, the media is delivered to the central operations center of the Hotel VOD system operator where it is stored on an array of storage devices. Each file stored on the storage device is stored with its unique identification code. An array of storage devices is an example of a compressed data storing means.

transmitter means, coupled to the compressed data storing means, for sending at least a portion of one of the files to one of the remote locations.



The Hotel VOD system operator distributes the media from their central operations center to hotels where it is then stored on VOD servers. A copy of the media that has been stored can now be delivered by the VOD server to the in-room equipment, which is remote from the video closet containing the VOD server. The media can be sent in compressed MPEG format, or may be decompressed and NTSC encoded, and sent as a standard television signal. The modulator for either type of transmission is an example of a transmitter means.