

AMTC IP Coverage

Internet Website Operator
Transmitting Audio to
Personal Computers
Compared to
Yurt '992 Claim 1

This document is the property of Acacia Technologies Group.

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;

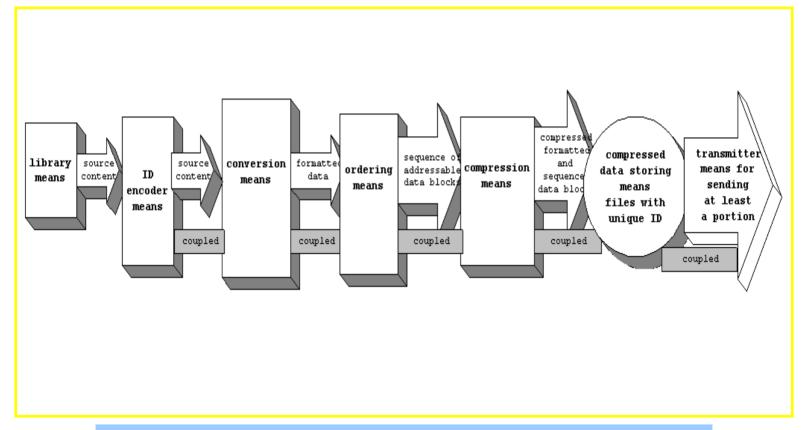
ordering means, coupled to the conversion means, for placing the formatted data into a sequence of addressable data blocks;

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

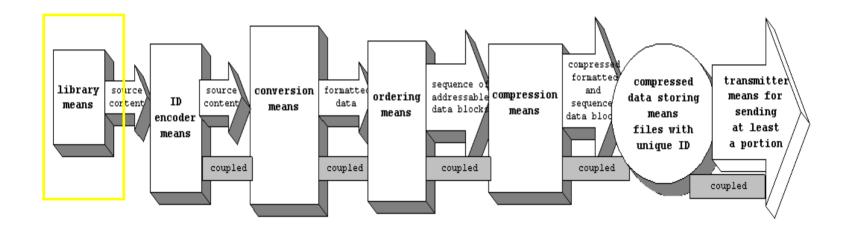
transmitter means, coupled to the compressed data storing means, for sending at least a portion of one of the files to one of the remote locations.

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



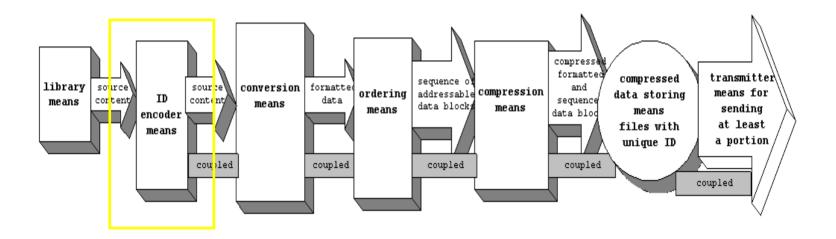
An Internet website operator transmitting compressed digital audio (e.g., news, music) over the Internet to its users is an example of a transmission system for providing information to be transmitted to remote locations.

library means for storing items containing information;



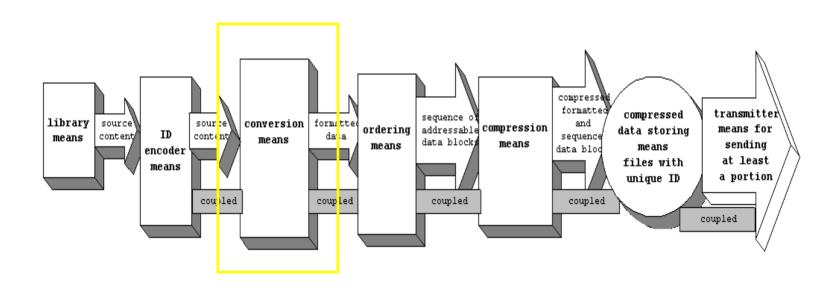
The Internet website operator receives media from content providers. These content providers have a library of content available for the Internet website operator to use. Physical media (e.g., CD's, cassette tape) may also be produced by the Internet website operator. The Internet website operator maintains its own library to store the physical media it produces. The Internet website library and the content provider library are examples 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;



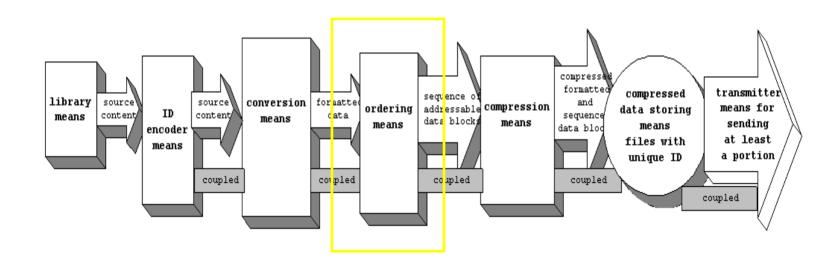
The media used by the Internet website operator is digitized and compressed prior to distribution to users. This digitization and compression may be done by the provider or by an agent acting on behalf of the provider. A technician(s) assigns a unique file name to identify the encoded media on a server after it has been encoded. The technician(s) and encoding software are one example of an identification encoding means for assigning a unique identification code to items of information.

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



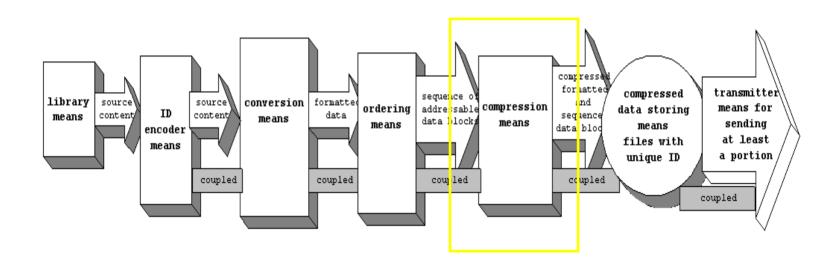
Physical media (e.g., a CD, a tape) is placed in a player (i.e., an input receiver) where it is output from the player in digital form. The signal is input to a digital formatter and converted to a predetermined format. The receivers, converters, and formatters represent examples of conversion means 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;



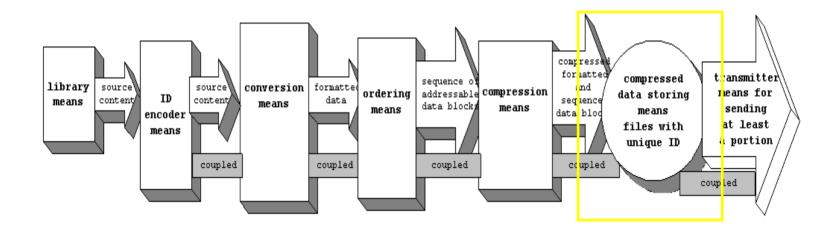
Most audio encoders, such as RealAudio and Windows Media, organize audio data into discrete data objects prior to compression. Time stamps for data objects in the stream are assigned by the encoder to the data blocks prior to compression. The portion of the audio encoder that creates these time stamped data objects is an example of an ordering means for placing formatted data into a sequence of addressable data blocks.

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



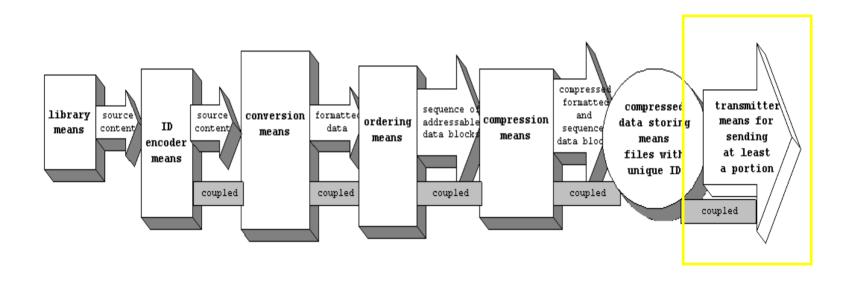
Audio encoders encode the data objects. Audio encoders are examples of compression means.

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



The compressed media is delivered from the content encoding location to the Internet website operator's distribution location where it is stored as files on an array of storage devices. Each file stored on the storage device is stored with its unique identification code. This distribution location may be managed by the website operator or by a content delivery network (CDN) or hosting provider acting on the behalf of the website operator. 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 Internet website operator transmits (e.g., streams, downloads) the audio from a media server connected to the array of storage devices over the Internet to the personal computers of its users. The media server and its infrastructure is an example of a transmitter means.