



AMTC IP Coverage

Online Education Provider
Transmitting Audio to
Personal Computers
Compared to
Yurt '992 Claim 41

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Patent 5,132,992 Claim 41:

41. A method of transmitting information to remote locations, the transmission method comprising the steps, performed by a transmission system, of:

storing items having information in a source material library;

retrieving the information in the items from the source material library;

assigning a unique identification code to the retrieved information;

placing the retrieved information into a predetermined format as formatted data;

placing the formatted data into a sequence of addressable data blocks;

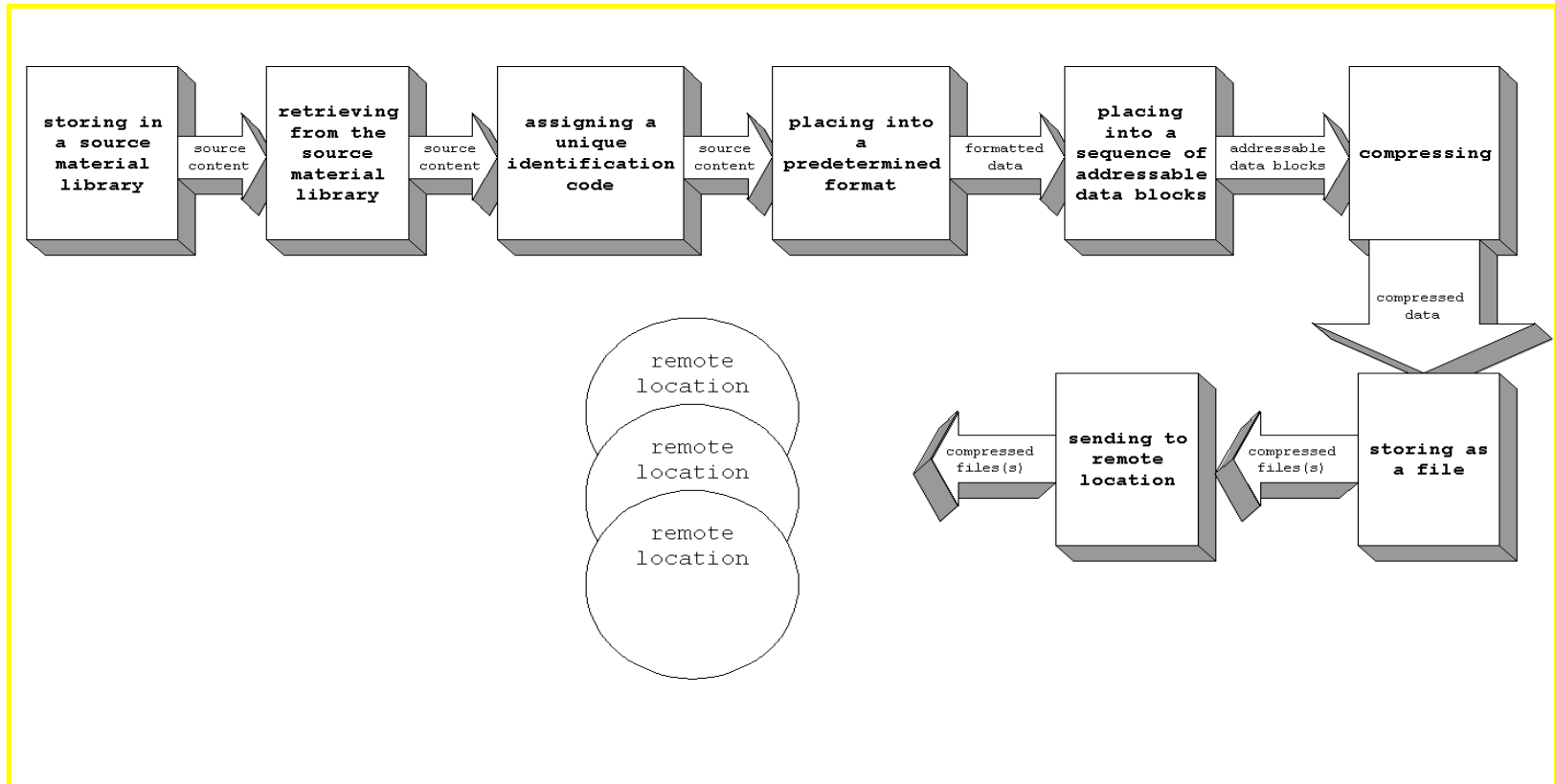
compressing the formatted and sequenced data blocks;

storing, as a file, the compressed, formatted, and sequenced data blocks with the assigned unique identification code; and

sending at least a portion of the file to one of the remote locations.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

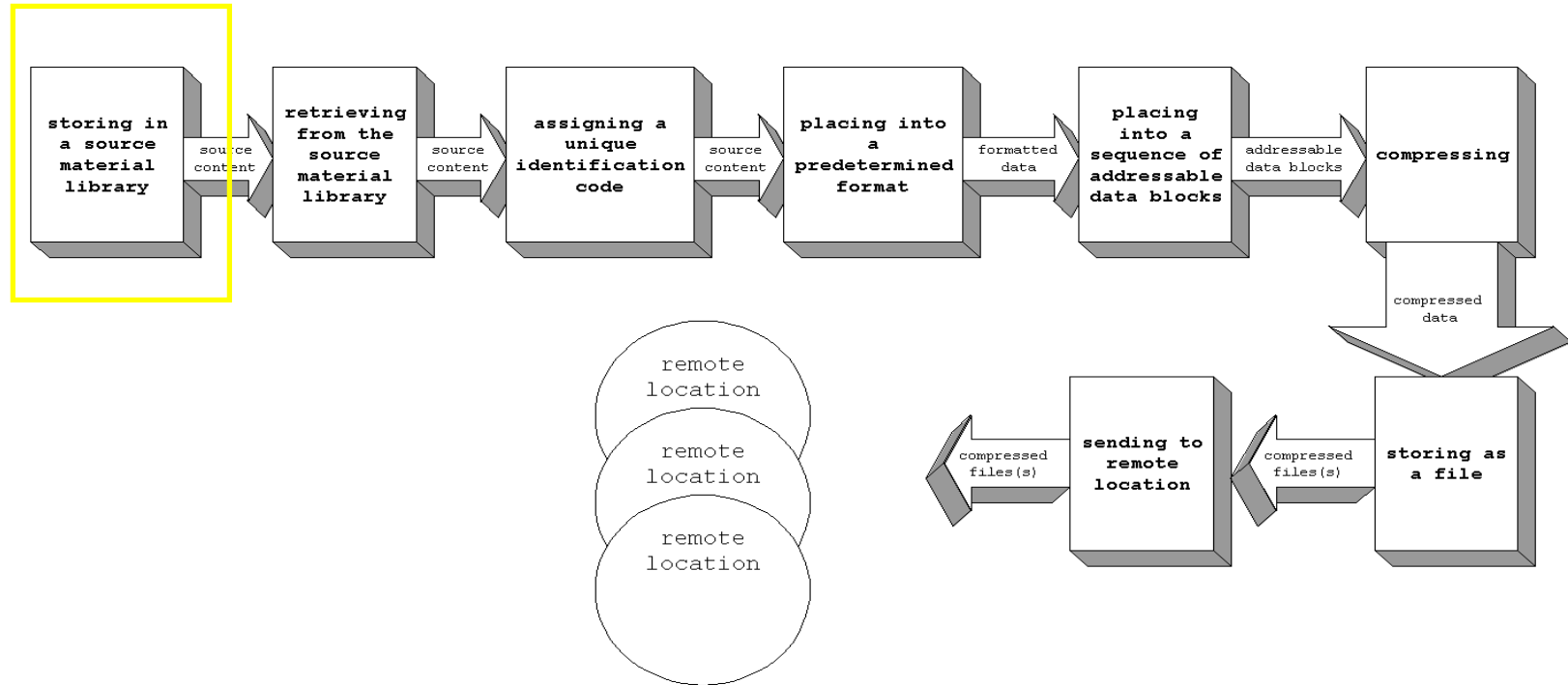
A method of transmitting information to remote locations, the transmission method comprising the steps, performed by a transmission system, of:



An online education provider transmitting compressed digital audio (e.g., classroom lectures, music) over the Internet to its students is an example of a method of transmitting information to remote locations.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

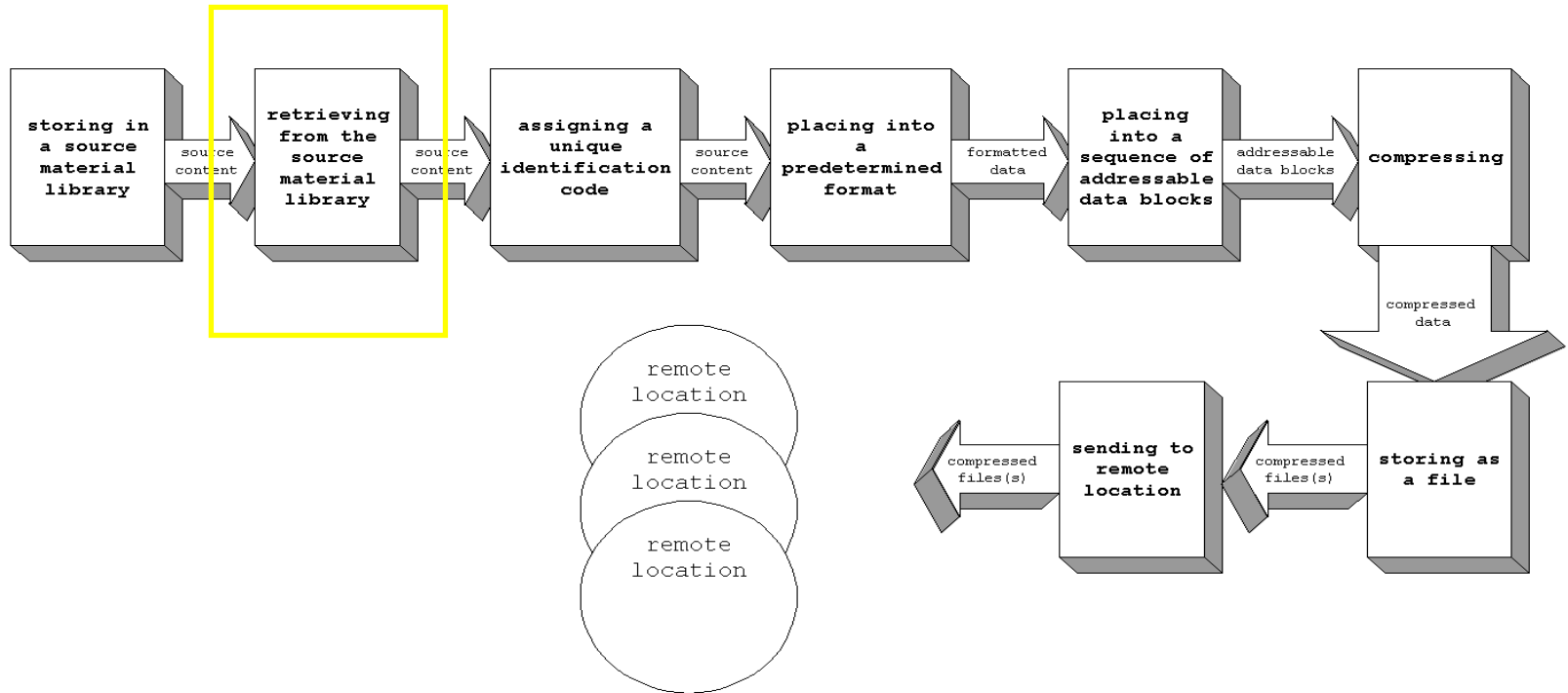
storing items having information in a source material library;



The online education provider receives media from content providers (e.g., McGraw-Hill, Thomson). These content providers have a library of content available for the online education provider to use. Physical media (e.g., cassette tape) may also be produced by the online education provider. The online education provider maintains its own library to store the physical media it produces. Storing physical media in a media storage library is an example of storing items having information in a source material library.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

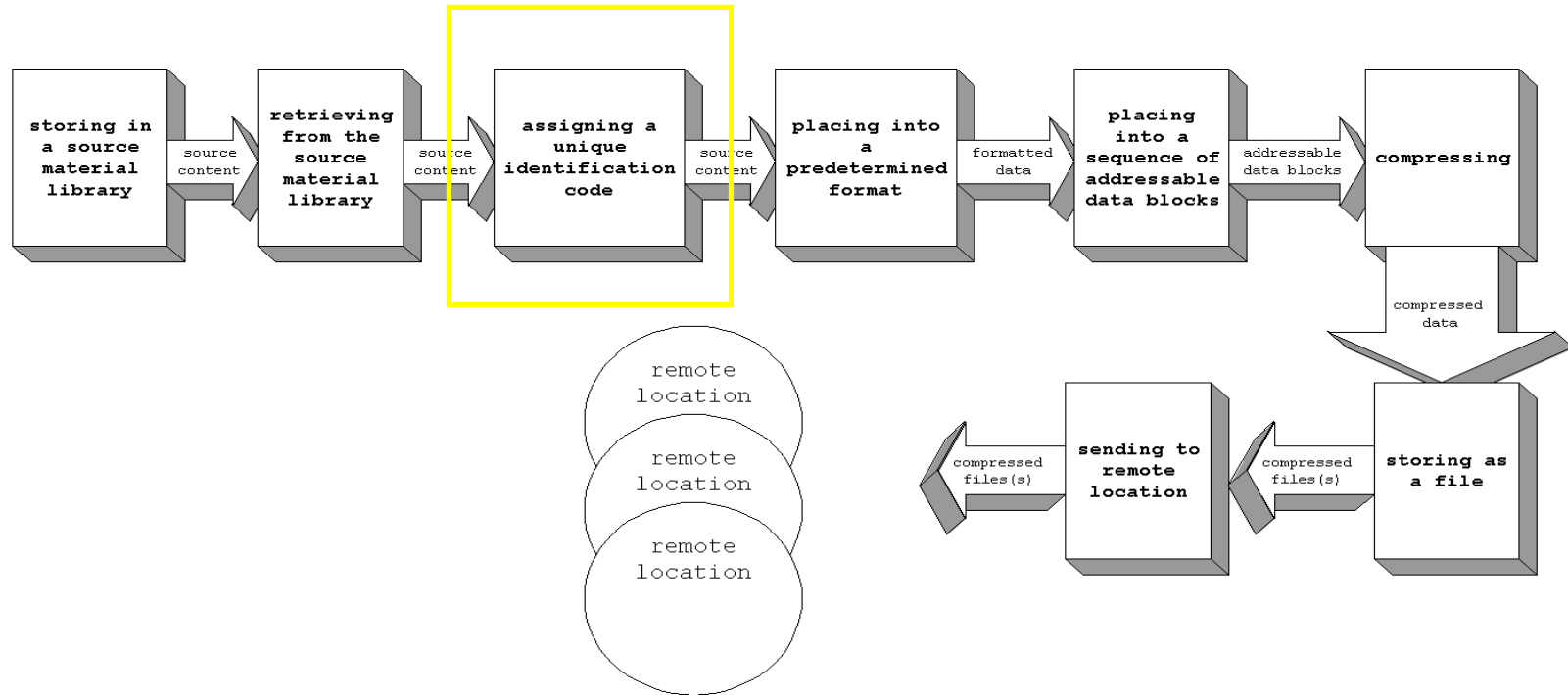
retrieving the information in the items from the source material library;



The physical media is digitized and compressed prior to distribution to students. This digitization and compression may be done by the online education provider or by an agent acting on their behalf. A technician(s) retrieves the cassette tapes from the physical media storage library for encoding, and for other reasons such as adding program notes or additional media processing. This is an example of retrieving the information in the items from the source material library.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

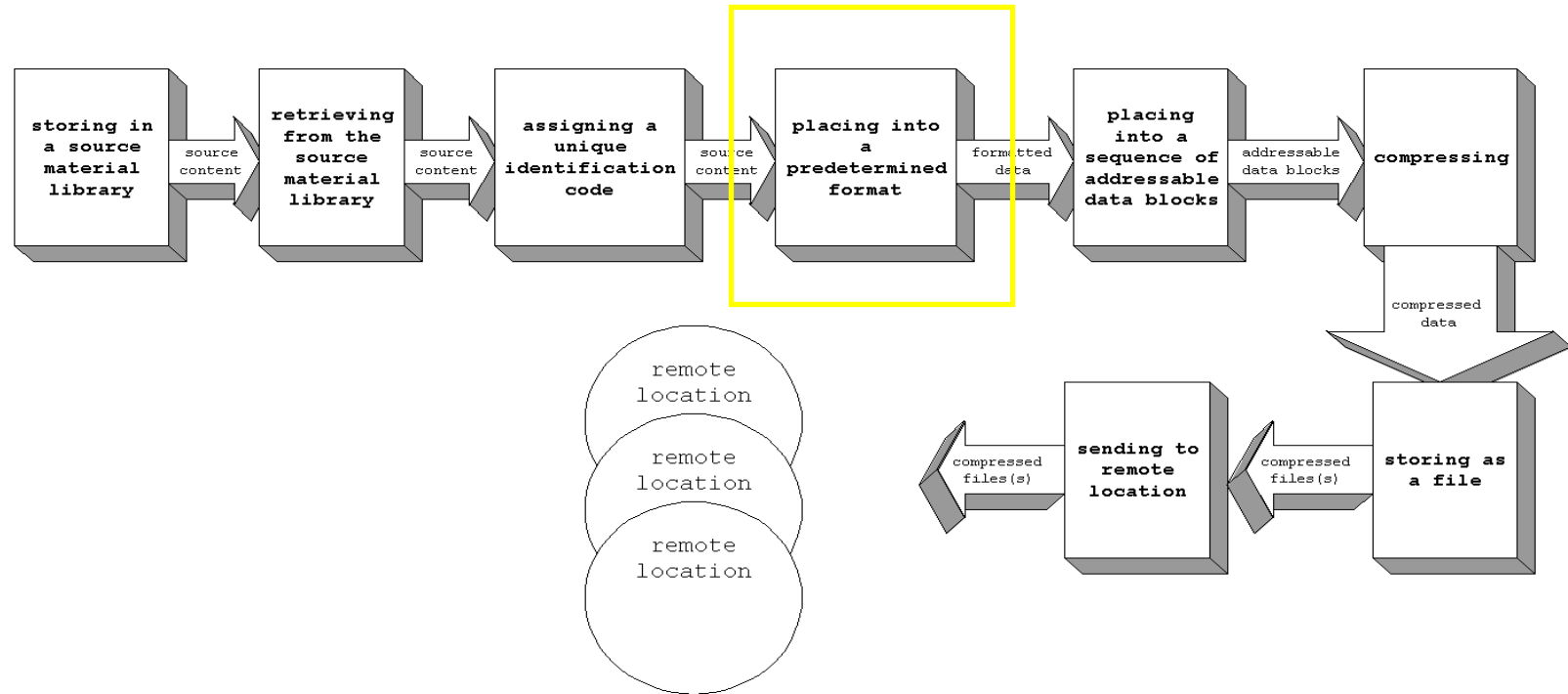
assigning a unique identification code to the retrieved information;



The technician(s) assigns a unique file name to identify the audio. This is an example of assigning a unique identification code to the retrieved information.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

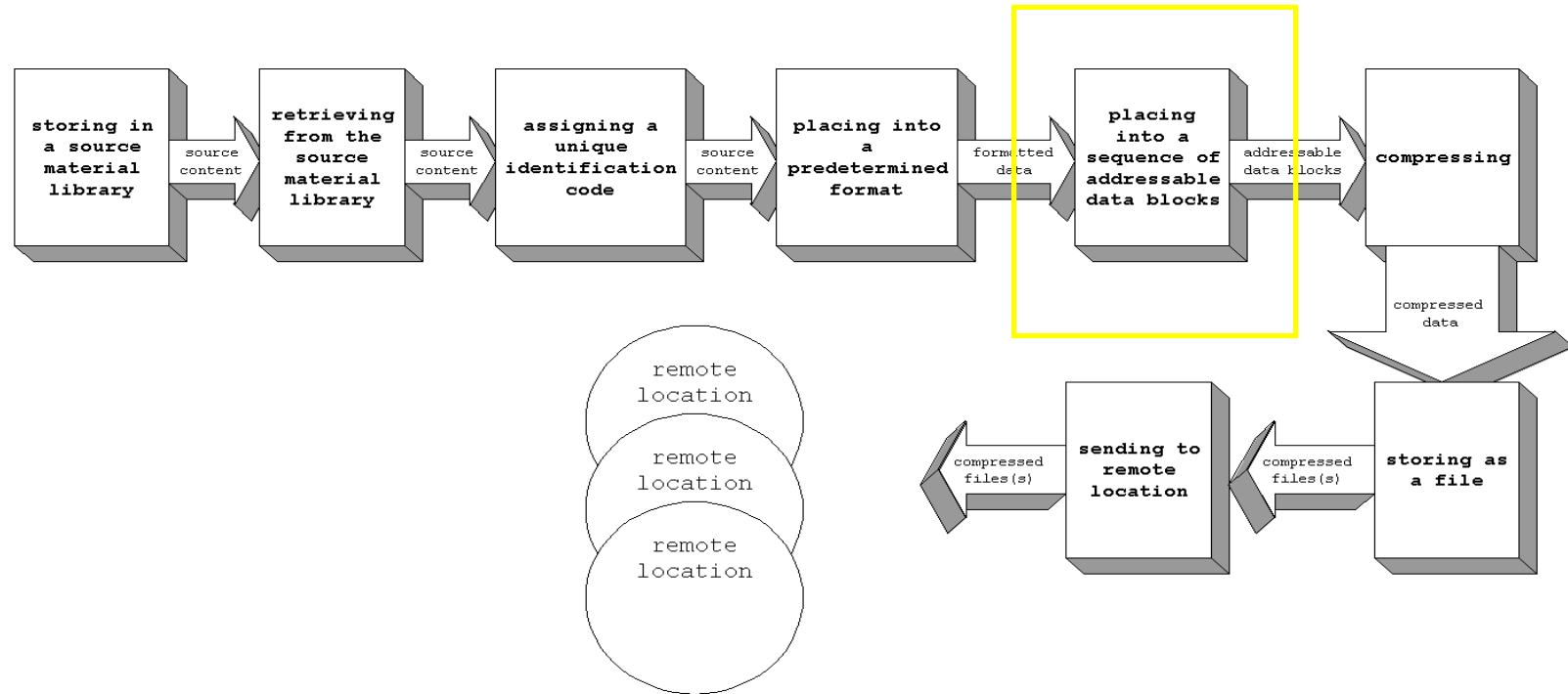
placing the retrieved information into a predetermined format as formatted data;



Physical media (e.g., a cassette tape) is placed in a tape 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 digital receivers, converters, and formatters represent examples of placing the retrieved information into a predetermined format as formatted data.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

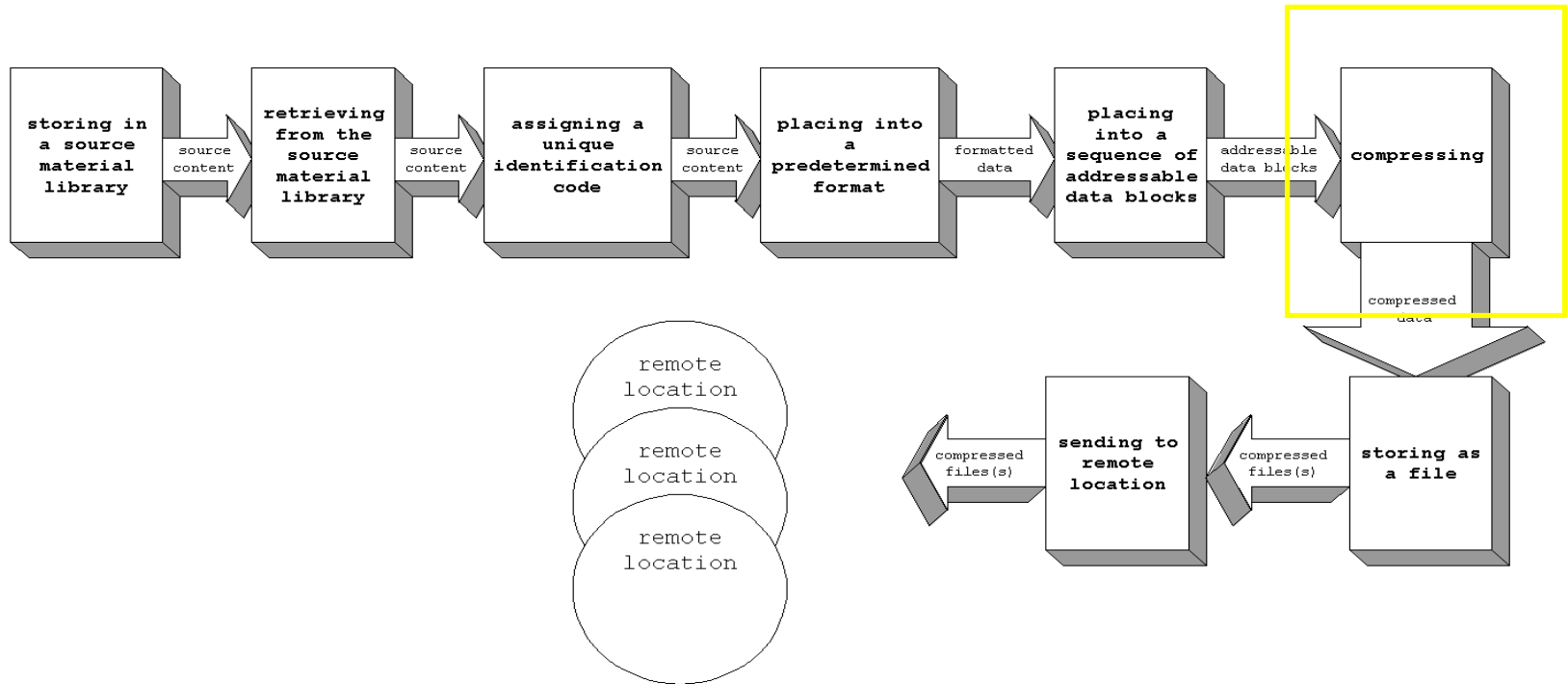
placing the formatted data into a sequence of addressable data blocks;



Audio encoders, such as RealAudio, 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. This is an example of placing the formatted data into a sequence of addressable data blocks.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

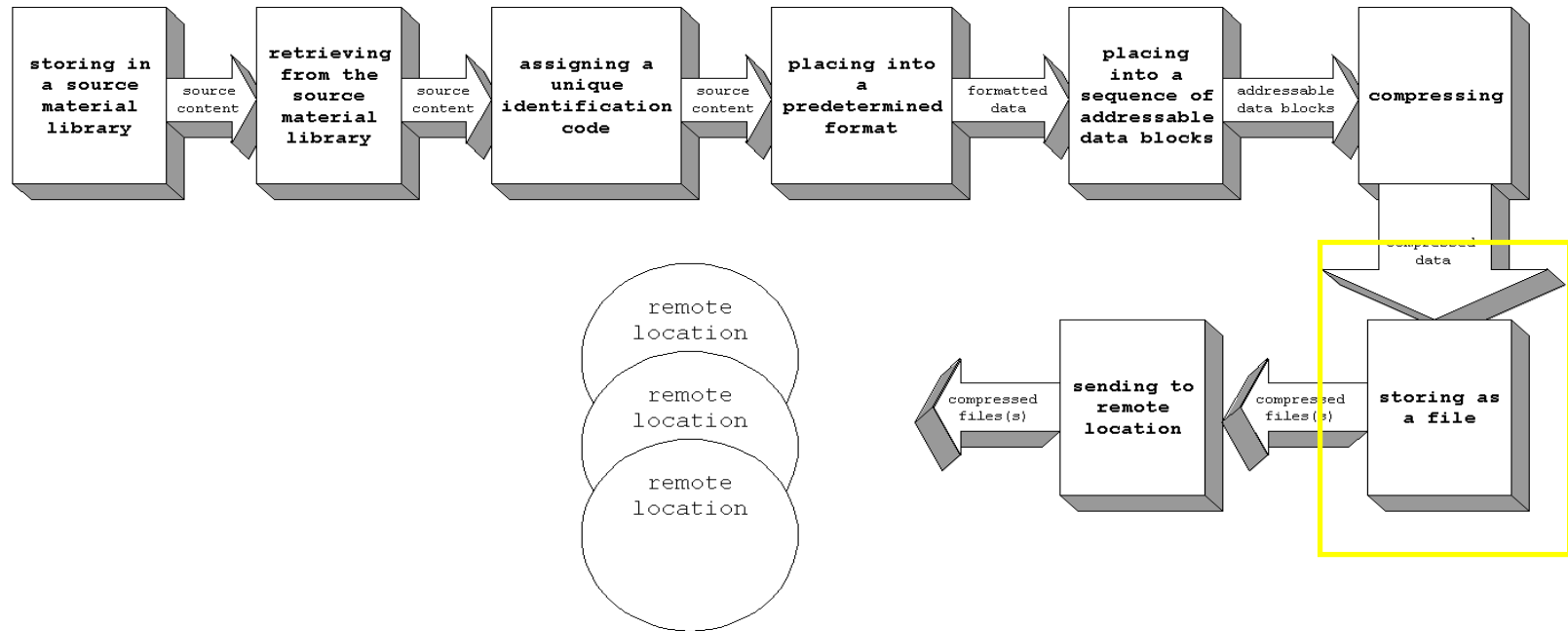
compressing the formatted and sequenced data blocks;



Audio encoders encode the data objects. This is an example of compressing the formatted and sequenced data blocks.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

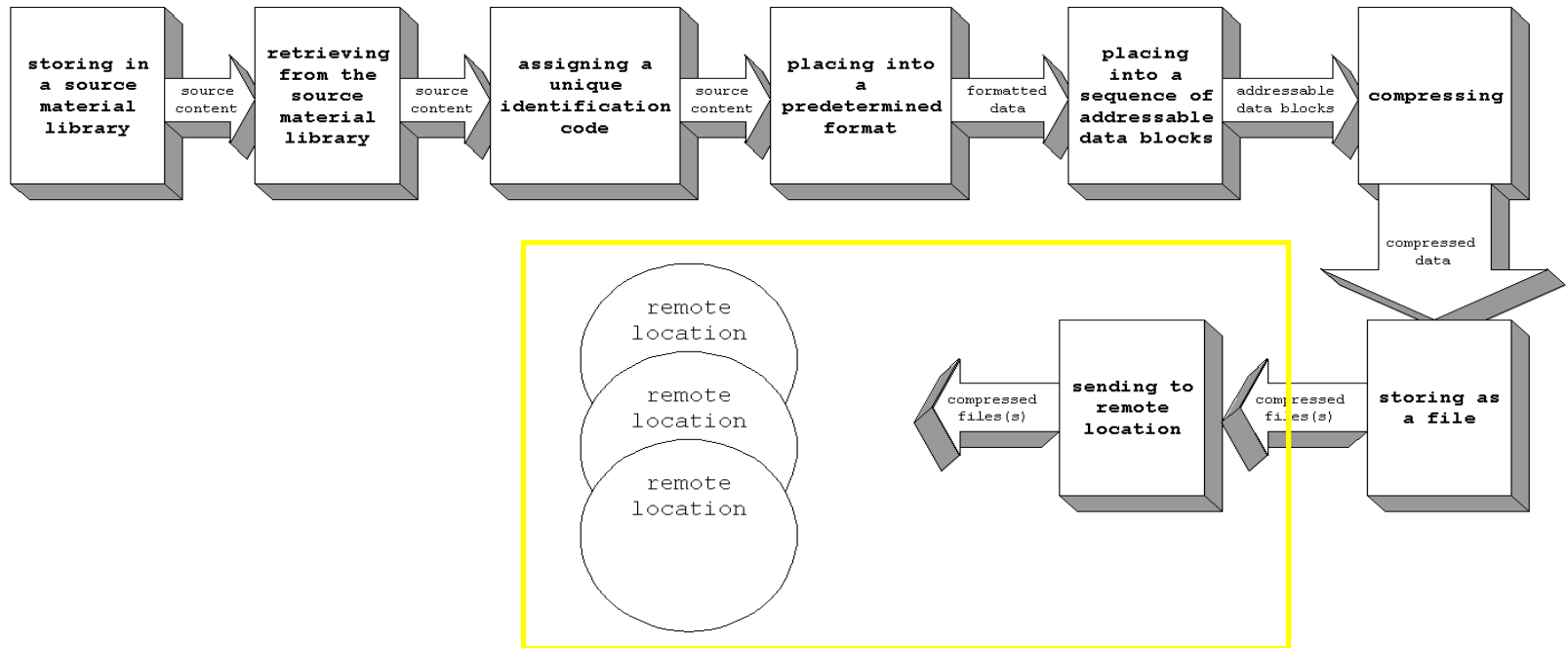
storing, as a file, the compressed, formatted, and sequenced data blocks with the assigned unique identification code; and



Once compressed, media is delivered from the encoding location to the online education provider'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 online education provider or by a content delivery network (CDN) or hosting provider acting on the behalf of the online education provider. This is an example of storing, as a file, the compressed, formatted, and sequenced data blocks with the assigned unique identification code.

Online Education Provider Transmitting Audio to Personal Computers Compared to the '992 Patent Claim 41:

sending at least a portion of the file to one of the remote locations.



The online education provider 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 customers. This is an example of sending at least a portion of the file to one of the remote locations.