



AMTC IP Coverage

Online Education Provider
Transmitting Media 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;

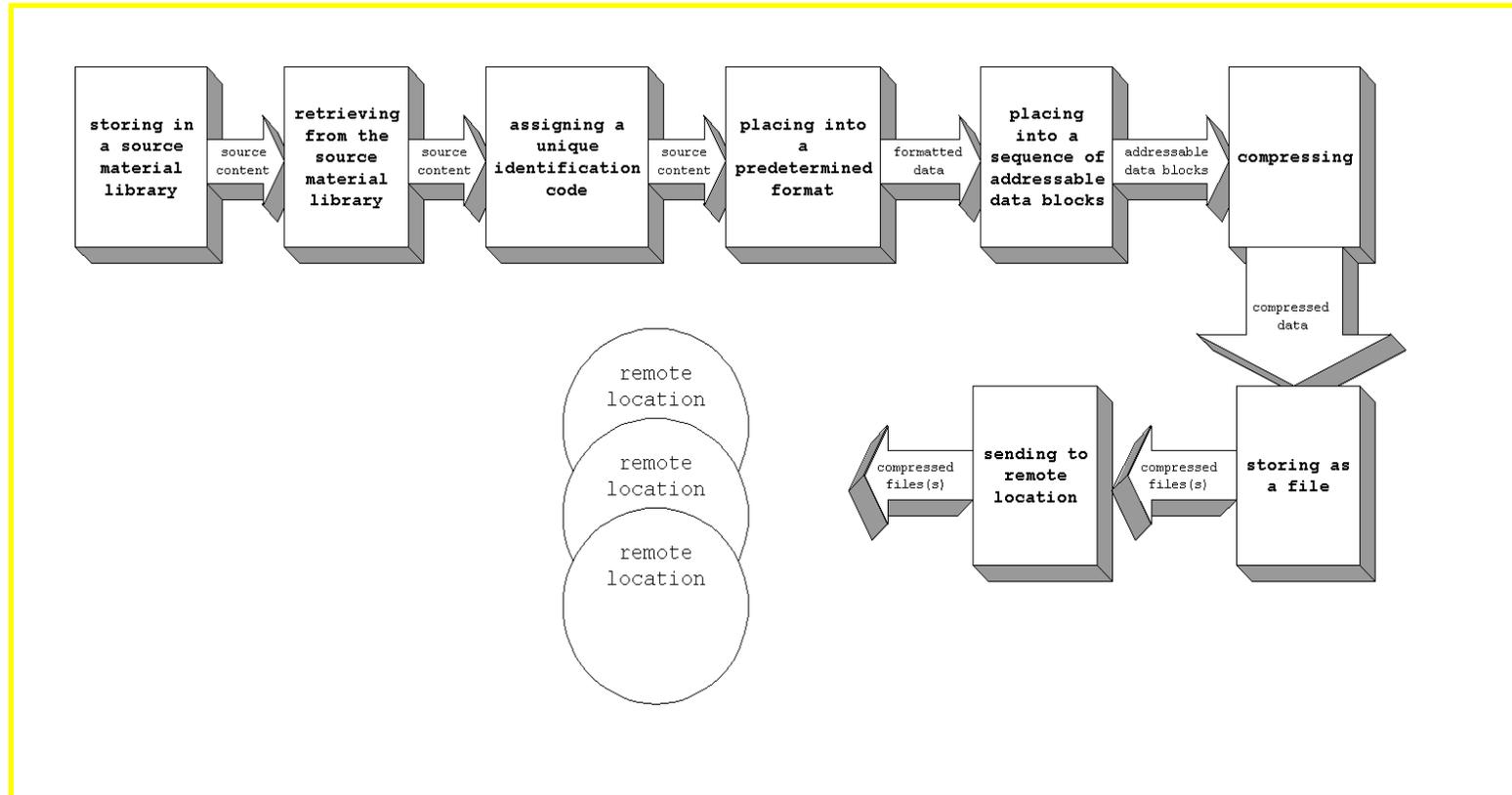
- compressing the formatted and sequenced data blocks;

- 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 Media to Personal Computers Compared to the '992 Patent Claim 41:

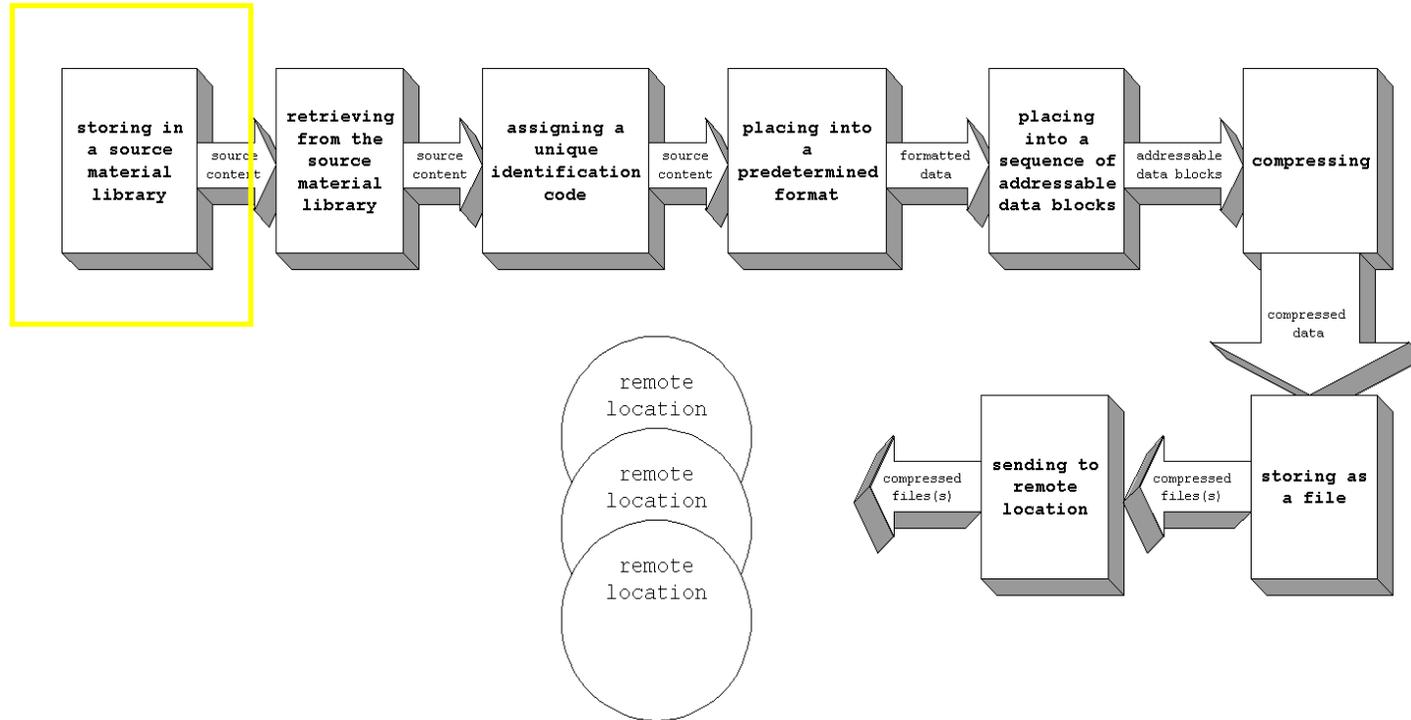
A method of transmitting information to remote locations, the transmission method comprising the steps, performed by a transmission system, of:



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

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

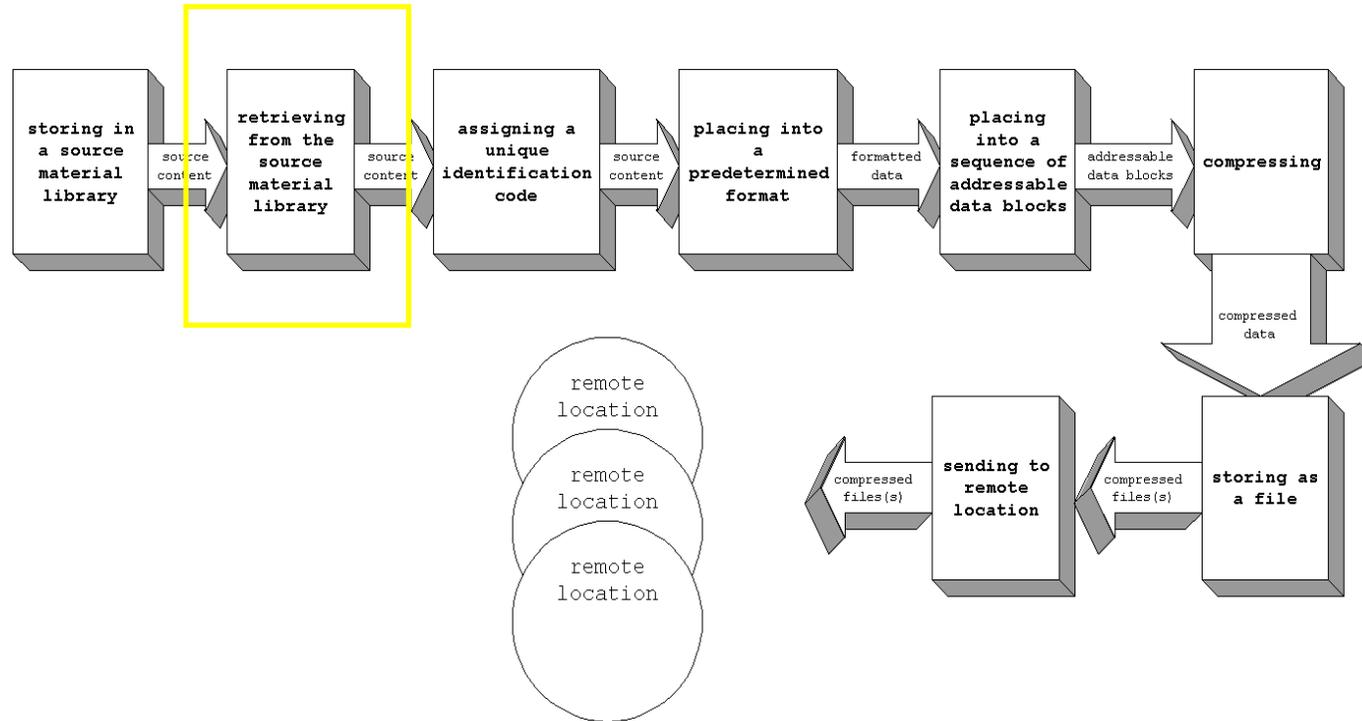
storing items having information in a source material library



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., videotape) may also be produced by the online education provider. The online education provider maintains its own library to store the physical media it produces. These are examples of storing items having information in a source material library.

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

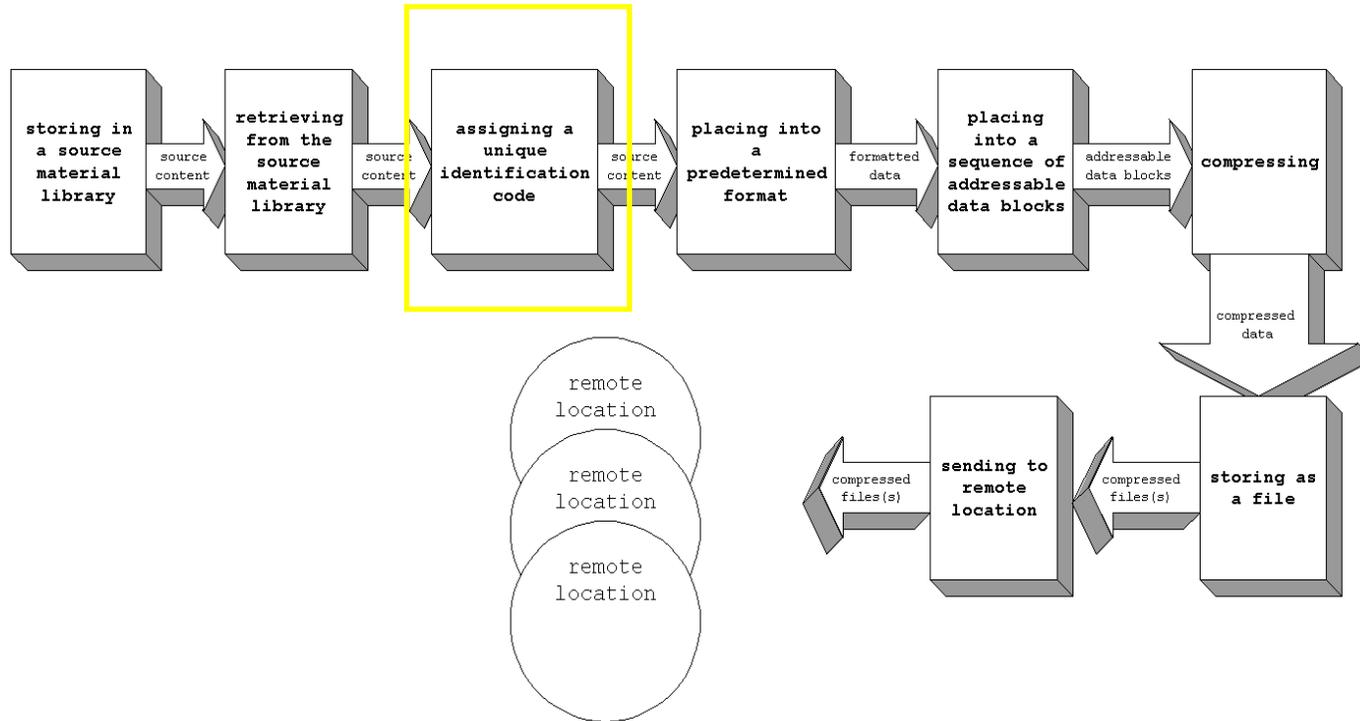
retrieving the information in the items from the source material library;



The media is digitized and compressed prior to distribution to customers. This digitization and compression may be done by the online education provider or by a content provider acting on behalf of the online education provider. A tape operator(s) retrieves physical media (e.g., a videotape) from the library to be encoded. The tape operator(s) retrieving the media from the library is an example of retrieving the information in the items from the source material library.

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

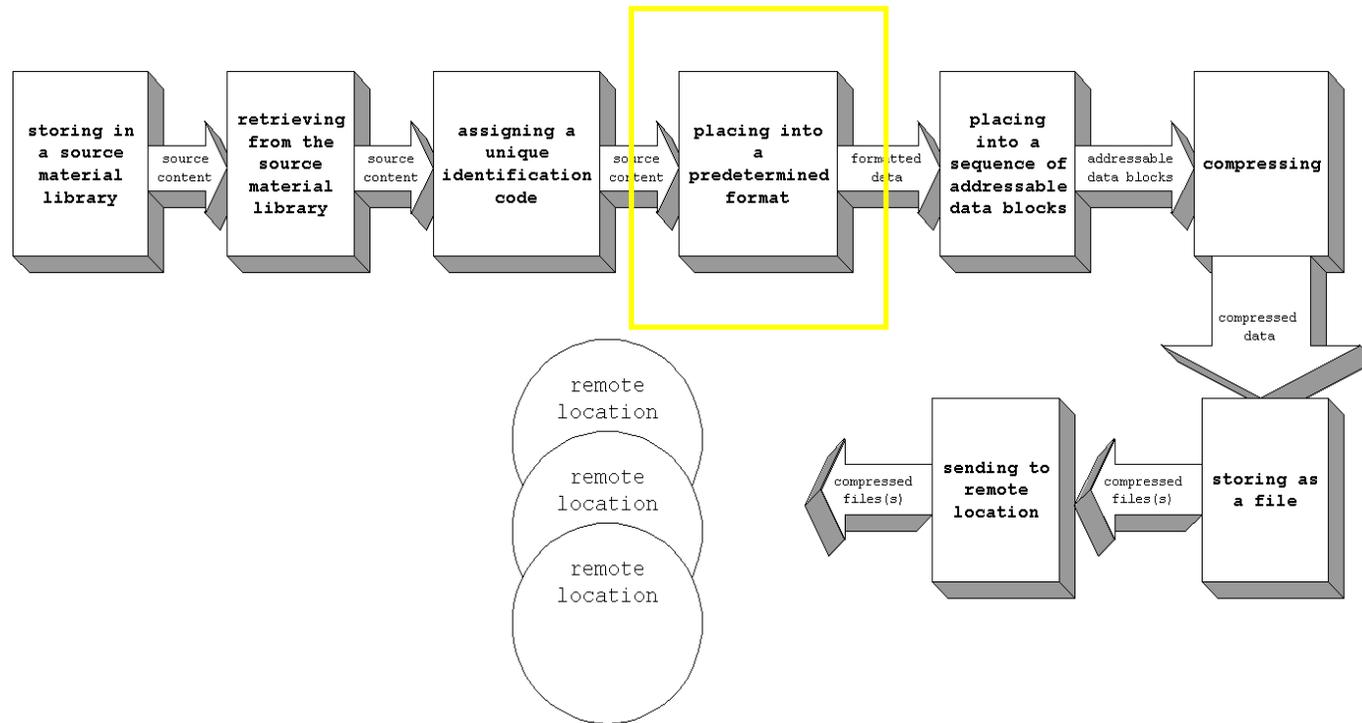
assigning a unique identification code to the retrieved information



A unique file name will be assigned to identify the encoded media on a server after it has been encoded. This is an example of assigning a unique identification code to the retrieved information.

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

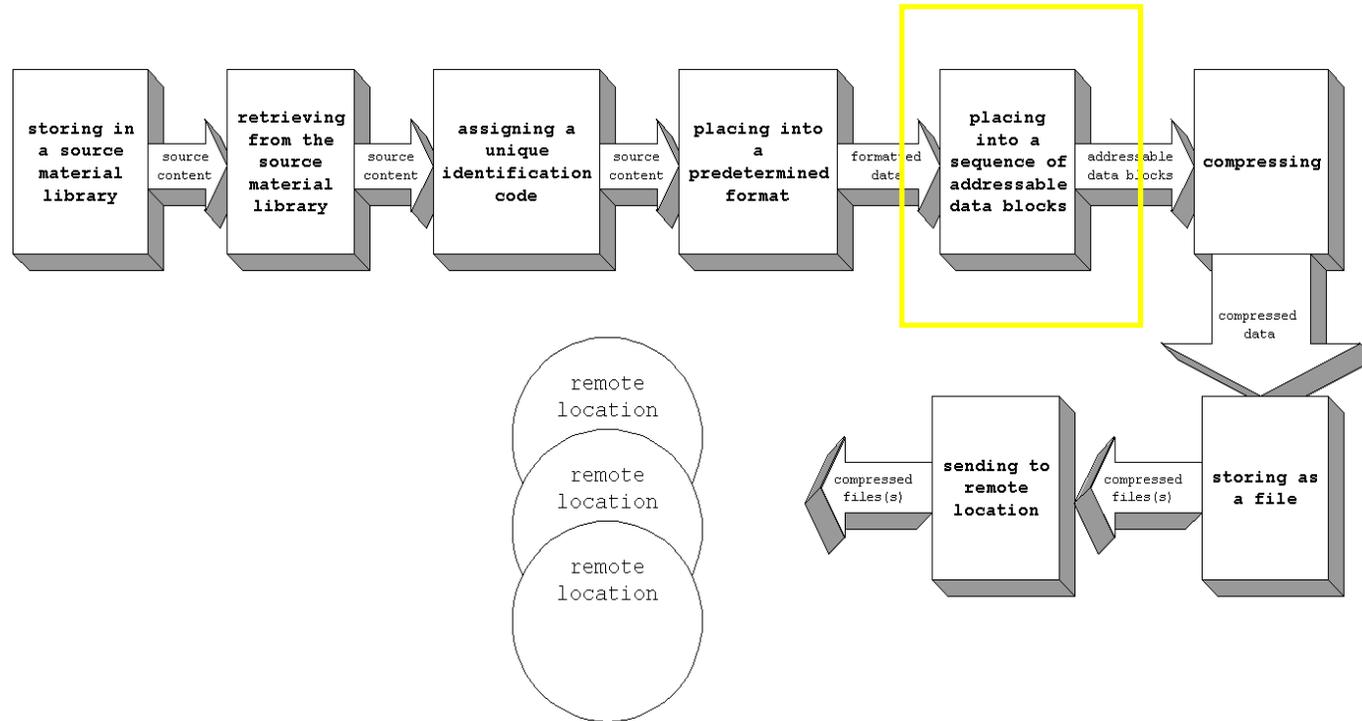
placing the retrieved information into a predetermined format as formatted data



Physical media (e.g., a 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 for placing retrieved information into a predetermined format as formatted data.

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

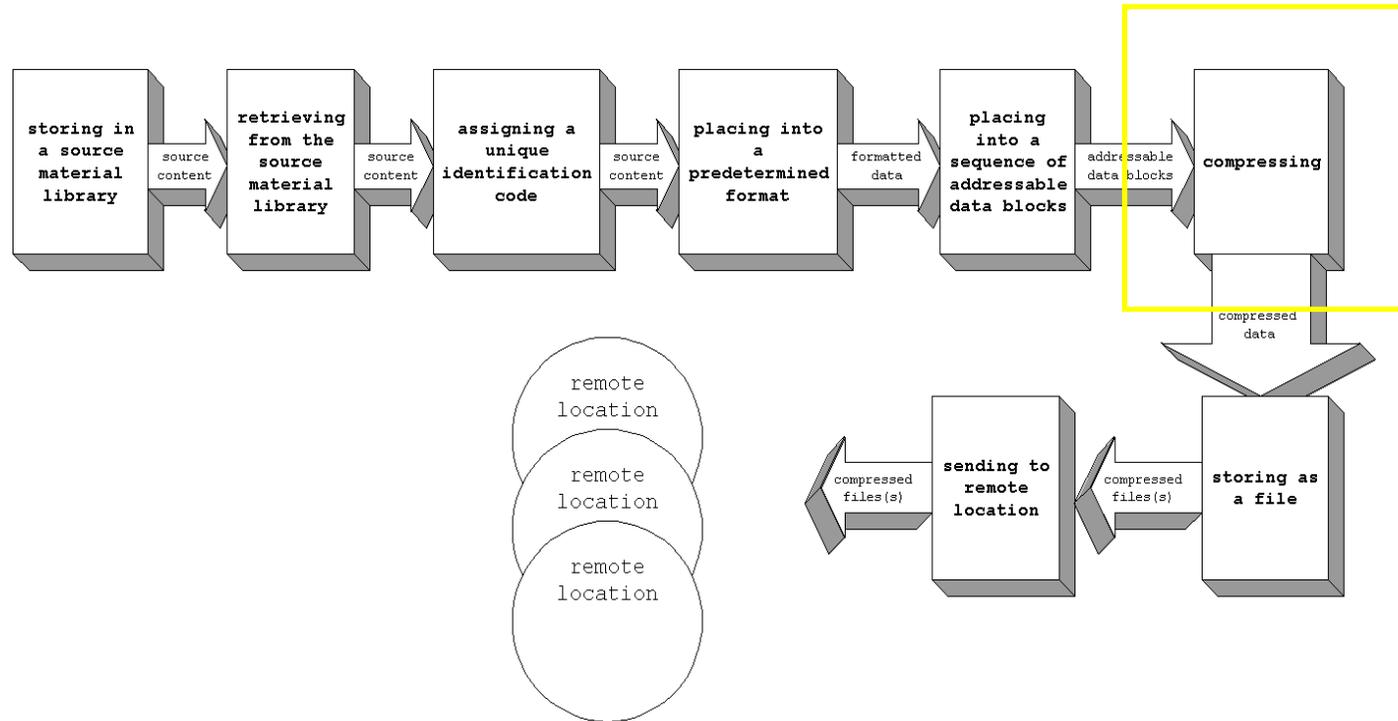
placing the formatted data into a sequence of addressable data blocks;



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. This is an example of placing the formatted data into a sequence of addressable data blocks.

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

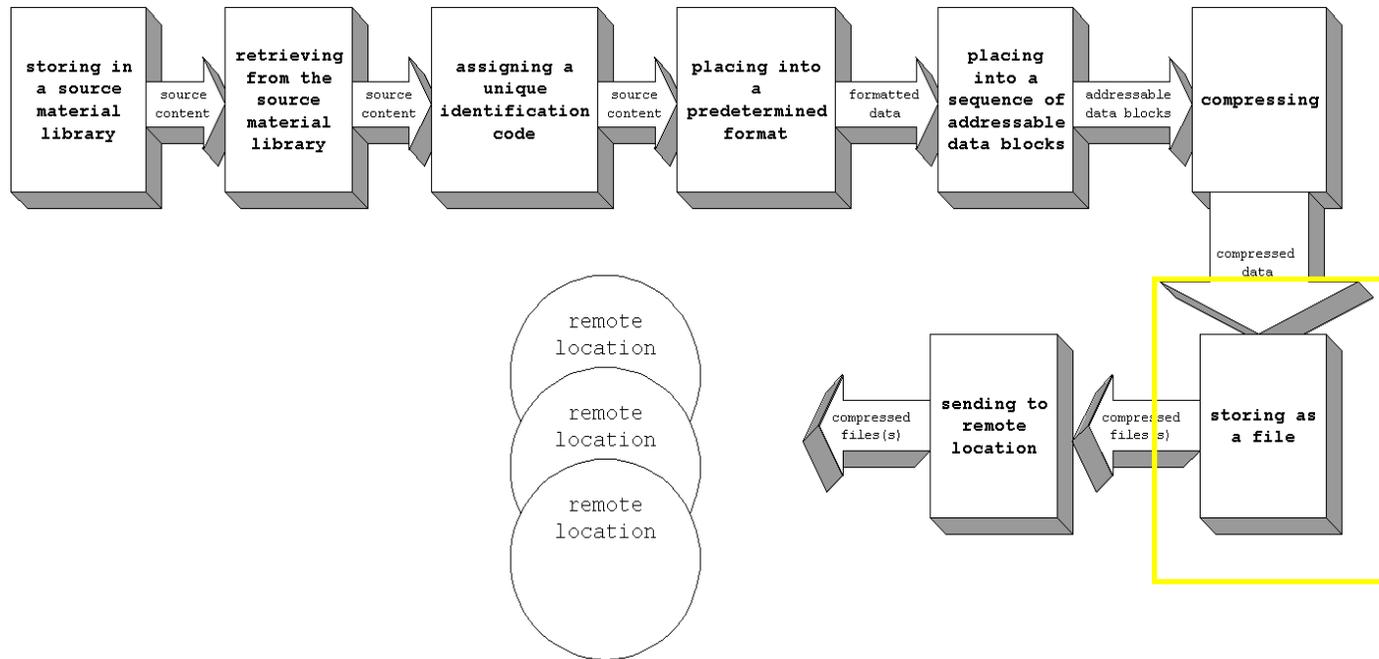
compressing the formatted and sequenced data blocks;



Video encoders compress video by operating on individual video frames and sequences of video frames. An online education provider, or an agent acting on their behalf, uses encoders by Apple, Microsoft, and/or Real to encode the media. Using encoders is an example of compressing the formatted and sequenced data blocks.

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

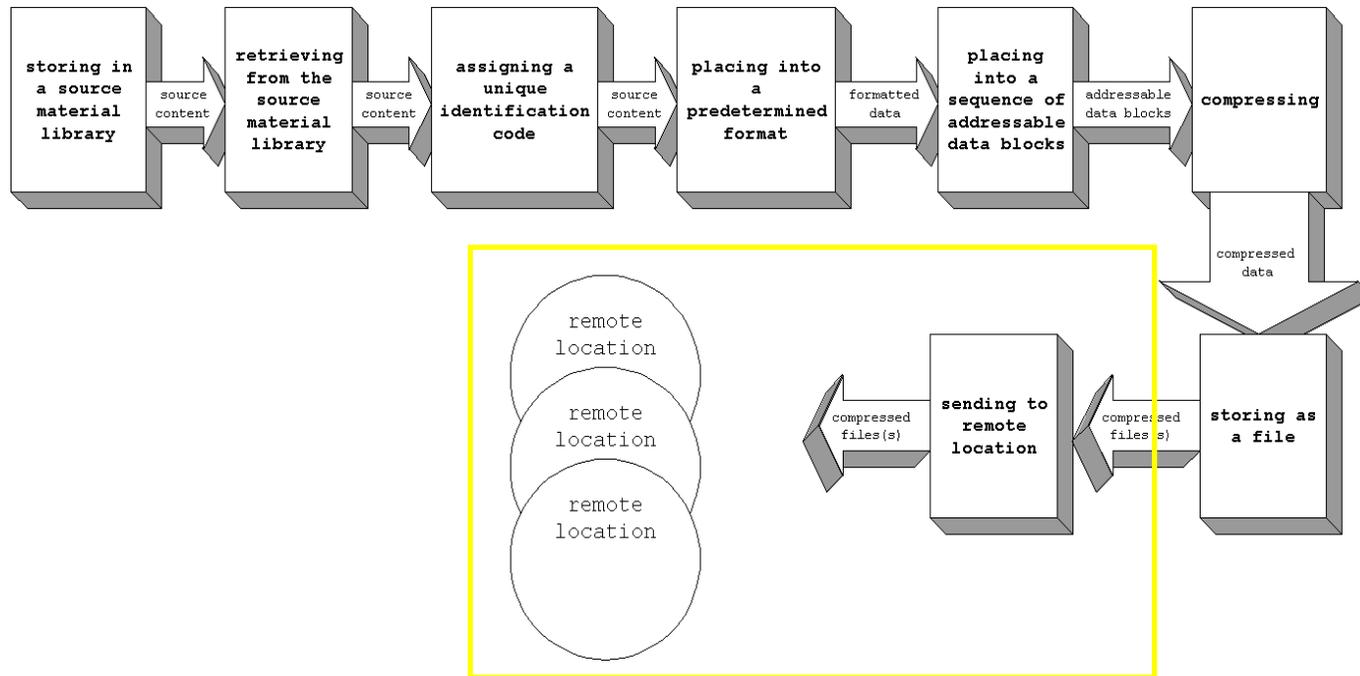
storing, as a file, the compressed, formatted, and sequenced data blocks with the assigned unique identification code; and



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.

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



The online education provider transmits media from a video server connected to the array of storage devices over the Internet to the personal computers of its students. Transmitting video over the Internet to personal computers is an example of sending to a remote location.