

## Method for Subsequent Retrieval of Different Qualities of Digital Content

Description:

Problem or Opportunity

Obtaining digital content from the internet is simple. Users can browse several different sites or poll for content on search engines, determine what content they want, and then save that content to their local computer. The content is then available for later use.

Sometimes, however, after the content has been downloaded, the user decides the quality of the content is not appropriate. This can be for one of several reasons. The user may decide that:

- The quality of the content is too high to store in the limited disk space available on their hard drive
- The quality of the content is too high to be displayed on a web page, as it will drastically increase the loading time of that page
- The quality of the content is too low to be useful in publication
- They prefer a higher quality of the content for their own personal use

When this occurs, the user is forced to locate an alternative copy of the content that is of the desired quality. This can involve returning to the original site to see if the site offers different qualities of the content, assuming the user has saved the location of the site containing the content, or remembers enough to find the site again. If the user is unable to locate the original site, they are forced to then manually search for another site containing the desired quality of the content. If a lower quality is needed, the file could be manipulated locally if available programs are installed that permit resampling of the media to lower the quality of a saved file. Either process is tedious, and is not guaranteed to result in the successful location of the desired quality of the content.

In another invention, methods were described to permit the specification of the quality or size of downloaded content at the time of download. This invention allows the user to easily and quickly download the desired quality of the content while knowing nothing more than the original location of the file that they previously saved to their local machine.

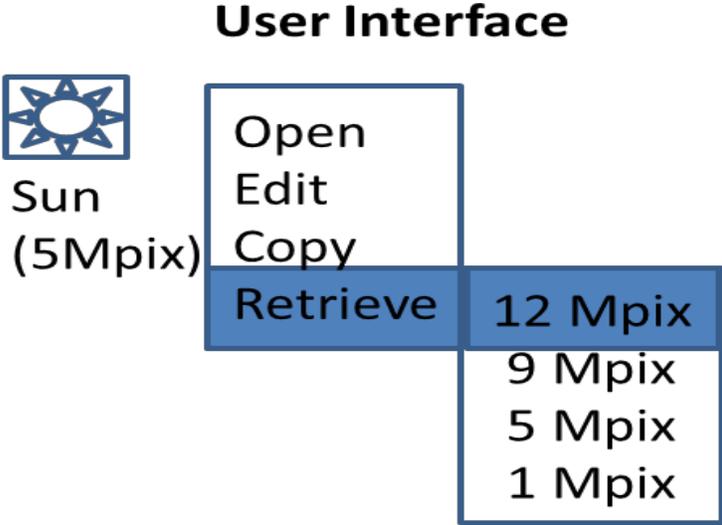
Detailed Description of the Invention

Building upon the previous invention permitting selection of media quality at download, in this invention, a reference is saved with each downloaded file on the local machine. This would typically be saved metadata for each downloaded file, including one or more of the following:

- An URL or link to the original source
- User or access information
- Quality settings
- Unique file identifiers

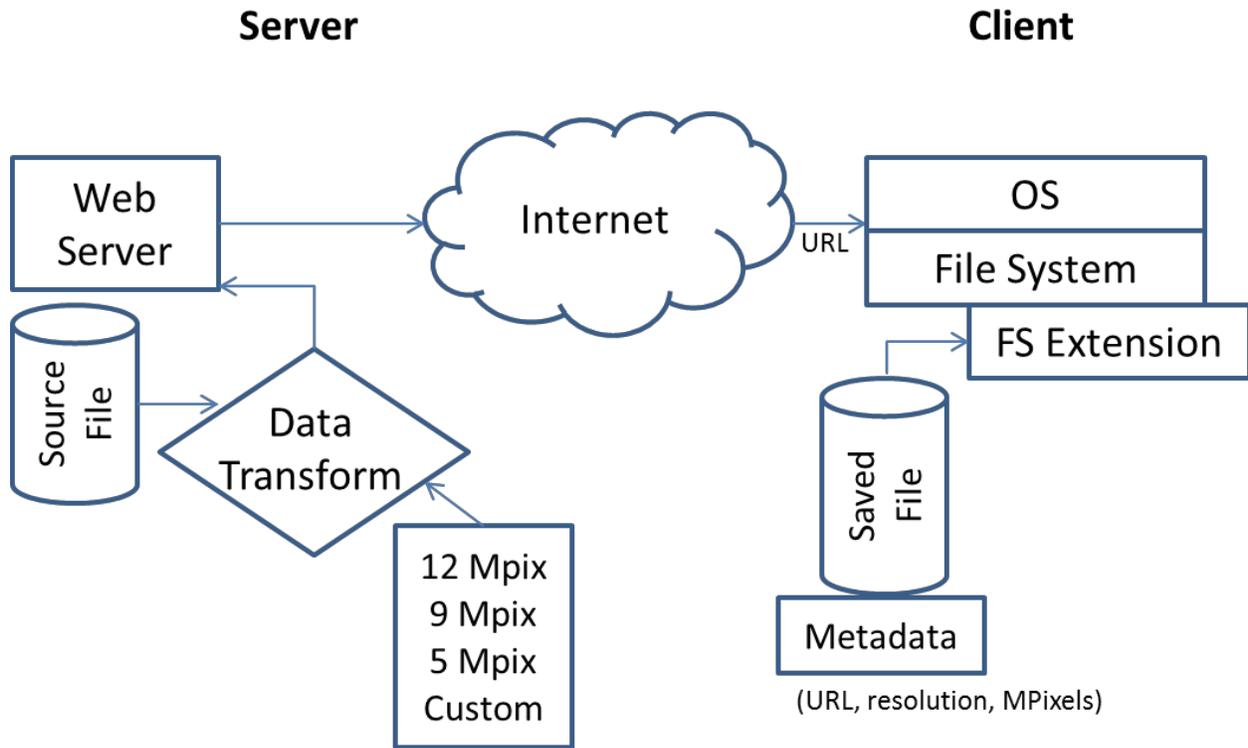
A download manager or a similar application capable of storing information about the original source of digital content re-connects to that source. The user can then select a new level of quality or download parameter and retrieve the desired format directly, without navigating through the original interface and server pages used to download the original file.

Figure 1 depicts an example user interface for downloading the specified quality of pre-downloaded content.



The user interface offers a menu selection (or command) on a file to permit re-download of a file as offered by the server. The user interface uses the stored metadata to query the server (Figure 2), determine available levels of quality, then present appropriate choices to the user. The client system consists of a file system extension or another mechanism for that acts as a backend for the user interface, storing and/or retrieving information about downloaded content.

Figure 2 depicts the relationship between the client and server.



The server system (Figure 2) consists of a web server capable of transcoding content at differing levels of quality on demand from a source file. Optimally, the client would then store information needed for future retrieval of different qualities of the content in the metadata of the file that is being downloaded on the client machine.