

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 April 2002 (25.04.2002)

PCT

(10) International Publication Number
WO 02/33973 A2

- (51) International Patent Classification⁷: H04N 7/16
- (74) Agents: MAJERUS, Laura, A. et al.; Fenwick & West LLP, Two Palo Alto Square, Palo Alto, CA 94306 (US).
- (21) International Application Number: PCT/US01/32169
- (81) Designated State (*national*): JP.
- (22) International Filing Date: 15 October 2001 (15.10.2001)
- (84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

60/240,715	15 October 2000 (15.10.2000)	US
60/240,714	15 October 2000 (15.10.2000)	US
- (71) Applicant: SONICBLUE INCORPORATED [US/US];
2841 Mission College Boulevard, Santa Clara, CA 95054-1838 (US).
- (72) Inventors: ROSENBERG, Scott, A.; 119 Prospect Street, Apt. B, Somerville, MA 02143 (US). SELF, Matthew, H.; 768 Bain Place, Redwood City, CA 94062 (US).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 02/33973 A2

(54) Title: METHOD AND SYSTEM FOR PAUSE ADS

(57) Abstract: A system and method for placing ads on a client-side video replay system during a pause mode.

Method and System for Pause Ads

Related Applications

This application claims priority under 35 U.S.C. § 119(e) to both U.S. Provisional Application No. 60/240,715, filed October 15, 2000, and entitled “Method and System for Dynamic Ad Placement,” and U.S. Provisional Application No. 60/240,714, filed October 15, 2000, and entitled “Method and System for Pause Ads,” both of which are incorporated by reference herein in their entirety.

Technical Field

The present invention relates generally to video data recorders and, more specifically, to a method and system for determining and playing ads in video data recorders.

Background of the Invention

Advertisers have long tried to make sure that the right people are watching their advertisements. Television advertisers spend large amounts of money trying to make sure their advertisements (“ads”) are aired during television shows having the proper demographics. Thus, television advertisers attempt to match the ad to the demographics of the audience for particular television programs, purchasing advertising slots for those television programs that they hope will attract the proper audience for their ads. Unfortunately, there is no way for the advertisers to know in real time whether people are watching their ads or whether the ads are reaching the targeted demographic groups. Similarly, there is no way for television advertisers to determine the viewing patterns of individual viewers or to target ads to individual viewers since the same ads are broadcast to everyone watching a particular program.

Advertisers on the Internet have been targeting their ads for several years. An Internet advertiser can currently register for an ad-serving service, which attempts to distribute the advertiser's ads to users who will be receptive to the ads. To view a web page on the Internet, a user enters the URL of the web page or clicks on a link to the web page. The web page itself is fetched from the appropriate web server, and an ad is fetched from the ad service. The ad service attempts to determine which ad to send to the user based on which web page the user has requested and on various other factors known about the user (such as, for example, information about the user gleaned from cookies or from user registration procedures). Because the ad service is located on the server side, the ad service generally relies on one-size-fits-all rules to determine which ads to display for a particular page request. Because the ad selection process is centrally located, performance requirements often necessitate a simplification of the logic used to select an ad.

In addition, an Internet ad service is "coupled" to the user request. An Internet ad server bases the ad it serves, at least partly, on the URL of the requested web page. It is also important to note that the Internet ad server needs to send an ad to the user as quickly as possible, because the user is expecting to receive the requested web page (along with any other third party content, such as ads) as soon as possible. The fact that the typical Internet ad server is time-constrained makes it more difficult for the ad server to perform elaborate methods to determine which ads to send. Overcoming this problem typically requires the use of very high-end computers to serve the ads.

Ultimately, Internet ad serving solutions are request-based. That is, an ad is served from the central server in response to a request. Because many requests are fulfilled in parallel, ads for competing products may be served for each of the separate requests. While in theory the server could track ads being served to each client and eliminate the serving of two competing ads to the same client, the centralized ad serving environment, with millions of users and with ad serving distributed over many actual servers, makes this extremely difficult.

Moreover, an Internet ad server needs to be in substantially constant communication with the Internet, since ad requests are received constantly. Such a system was not designed to work in situations where the ad-receiving client is only intermittently connected to the Internet.

What is needed is a way to deliver ads to receptive audiences where there is ample time to determine who might be the best target for each particular ad and where the decision is sensitive to the context in which the ad request was made. In addition, it is desirable to be able to place ads extremely quickly for each individual user. Lastly, it is desirable to locate opportunities to insert additional ad content to the video playback.

Summary of the Invention

The described embodiments of the present invention display an ad or similar video picture during a pause interval that occurs when the user places the video replay device in a pause mode. The pause ad (or other video) can be a still or a moving picture. One embodiment displays an advertisement (either a still or a moving picture). One embodiment displays a user-selected ad or wallpaper design (such as family photos or video movies).

The process of determining which ad to display is called the ad selection process. The described embodiments decouple the ad selection process from the request for ad content. It should be understood that the invention can be employed in a variety of devices, such as video data recorders and set-top boxes, where the device is not in continuous communication with an initial ad source.

The context in which the described embodiment operates is an individual user's video replay system, although the invention is not intended to be limited to video replay systems. In a video replay system, a user selects program content by replaying previously "taped" content from a hard drive or similar storage medium or by turning on his television (or other content source) and selecting a program or show to watch. In the latter case, the selected program content is received by the replay system; it is first stored on the storage medium and then displayed on a display device such as a television set or monitor. A dynamic ad placement engine of a preferred embodiment preferably operates

within the video replay system and needs to select ads only for a single video replay system. The ad placement engine in a particular video replay system always selects ad content for that video replay system and does not have to spend time trying to determine the identity and preferences of every possible viewer of the content since only a very small subset of viewers watch content on a particular video replay system.

In the described embodiment, the device containing the dynamic ad placement engine is not necessarily always in communication with an initial source of ads. For example, an ad source might communicate with a video replay system periodically, such as once a day or several times a week, either at a set time or in response to an instruction or query, to obtain information about ads that may be displayed on the device.

Additionally, in the described embodiment, a dynamic ad placement engine knows about the current context of the system before an ad request is received. In the described embodiment, the ad selection process is “decoupled” from the ad content delivery process. Various software applications in the video replay system can determine at which times and under which circumstances they desire to display ads. The applications do not necessarily rely on whether the user has changed the content being viewed to determine when to request and display ads. This system is CPU-efficient and allows ads to be evaluated “at leisure” before they are served.

The described embodiments of the present invention do not select ads for placement at the time that the user selects his viewing content. Instead, the described embodiment of the present invention allows the user to select content as a separate function. Ad selection is not performed at the time of user content selection, but instead, is asynchronous to the user’s actions in selecting programming to watch. Thus, the ad selection engine gains evaluation time to make a more informed decision about which ad should be displayed next by the video replay system.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1(a) is a block diagram of a video replay system that can include ad placement software in accordance with the present invention.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.