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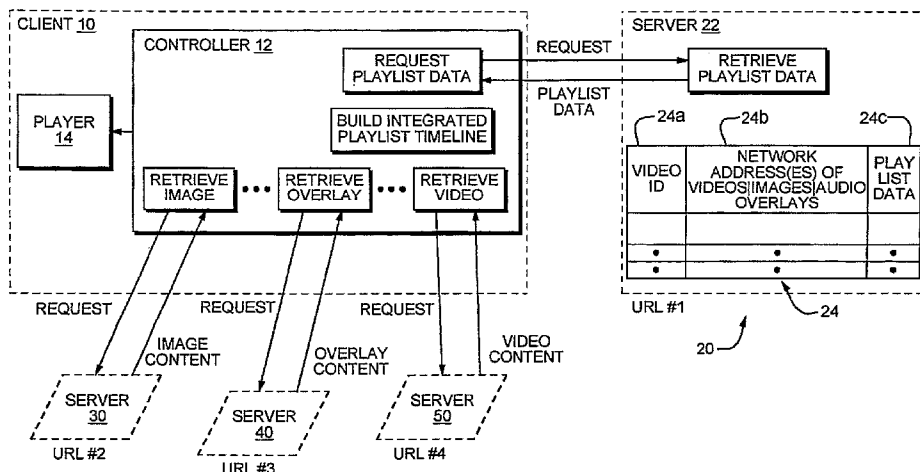
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(54) Title: METHODS AND SYSTEMS FOR DISPLAYING VIDEOS WITH OVERLAYS AND TAGS



(57) Abstract: In a system and method for displaying a video and an overlay or tag, an application that runs through a browser on a client is used to send a request from the client to a server over a computer network. In response to the request, at least the following is sent from the server to the client: a first uniform resource locator (URL) corresponding to a location on the network where the video is stored, a second URL corresponding to a location on the network where the overlay or tag is stored, and playlist data. The first and second URLs are associated with different servers on the computer network. The first and second URLs and the playlist data are used at the client to retrieve the video and the overlay or tag, and build a playlist. The client merges the video and the overlay into an integrated media sequence that is played to a user via the browser in accordance with the playlist, and displays the tag. The user is automatically linked to content associated with the overlay or tag when the user clicks on a representation of the overlay or tag displayed on the browser.

WO 2007/109162 A2

67831-5001WO

METHODS AND SYSTEMS FOR DISPLAYING  
VIDEOS WITH OVERLAYS AND TAGS

Cross-Reference to Related Application

The present application claim priority to US Provisional Patent Application  
5 No. 60/783,463, filed March 17, 2006, entitled "Viddler: the Online Video Platform  
Publishers Want," the contents of which are hereby incorporated herein by reference.

Field of the Invention

The present application relates generally to methods and systems for  
displaying videos with overlays and tags.

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Background of the Invention

There is a need in the art for systems that allow users to efficiently retrieve  
and play videos that have been enhanced in a collaborative environment to include tags and  
overlays.

Summary of the Invention

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The present invention is directed to a system and method for displaying a  
video with an overlay. An application that runs through a browser on a client is used to send  
a request from the client to a server over a computer network. In response to the request, at  
least the following is sent from the server to the client: a first uniform resource locator (URL)  
corresponding to a location on the network where the video is stored, a second URL  
20 corresponding to a location on the network where the overlay is stored, and playlist data that  
includes sequence information for playing each segment of the video, timing information  
indicating when to display the overlay during playing of the video, and location information  
indicating a coordinate within the video for displaying the overlay. The first and second

67831-5001WO

URLs are associated with different servers on the computer network. The first and second URLs are used at the client to retrieve the video and the overlay. The playlist data is used at the client to build a playlist and merge the video and the overlay into an integrated media sequence that is played to a user via the browser in accordance with the playlist. The user is automatically linked to content associated with the overlay during the playing of the media sequence when the user clicks on a representation of the overlay displayed on the browser.

In various embodiments, the overlay is a video overlay, an audio overlay, an image overlay or a text overlay. The playlist data sent from the server to the client optionally includes references to a plurality of different overlays associated with a single video, wherein content associated with each of the different overlays is stored at a different URL in the network. In a specific embodiment, the content associated with the overlay is stored at a third URL on the network, wherein the first, second and third URLs are associated with different servers on the computer network.

In accordance with a further aspect, the present invention is directed to a system and method for displaying a video and a tag associated with the video (e.g., a video tag, an audio tag, an image tag or a text tag.) An application that runs through a browser on a client is used to send a request from the client to a server over a computer network; wherein the server is associated with a first uniform resource locator (URL) on the computer network. In response to the request, at least the following is sent from the server to the client: a second uniform resource locator (URL) corresponding to a location on the network where the video is stored, one or more tags associated with the video, and playlist data that includes sequence information for playing each segment of the video, and time-bar coordinate information indicating a spatial location on a time bar where each of the one or more tags should be visually linked. The first and second URLs are associated with different websites on the computer network. The second URL is used at the client to retrieve the video. The playlist

67831-5001WO

data is used at the client to build a playlist and play the video and display the one or more tags visually linked to the time bar. The video is played and the one or more tags are displayed to a user via the browser in accordance with the playlist. The user is automatically linked to content associated with each of the tags when the user clicks on a representation of a tag displayed on the browser.

In some embodiments, the playlist data sent from the server to the client includes references to a plurality of different tags associated with a single video. In such embodiments, the content associated with at least one of the tags may be stored on the server, and may include one or more frames of the single video. Also, in such embodiments, the content associated with at least one of the tags is stored at a third URL on the network, wherein the first, second and third URLs are associated with different servers on the computer network. In some embodiments, each of the tags corresponds to a comment about the video and/or a time interval in the video.

#### Brief Description of the Drawings

Figure 1 is a diagram of a system for displaying videos with overlays and tags.

Figure 2 is a user interface for sending a request to display a video sequence with overlays and/or tags from a client to a server over a computer network.

Figure 3A depicts exemplary playlist data sent from the server to the client.

Figures 3B and 3C depicts exemplary playlist data tables sent from the server to the client.

Figures 4A and 4B are user interfaces that display a merged video that includes a video overlay with transition effects, in accordance with an example of the invention.

67831-5001WO

Figure 4C is a user interface that displays a merged video that includes a video overlay and a text hotlink overlay, in accordance with a further example of the invention.

Figure 5 is a user interface that displays a merged video that includes a clickable tag, in accordance with an example of the invention.

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### Detailed Description of the Preferred Embodiments

Figure 1 shows a system for displaying videos with overlays and tags. Client 10 includes a controller 12 and a player 14. Client 10 includes a software application that runs through a browser on the client. Through the browser, the client remotely connects over a network (i.e., the Internet) to various web sites during implementation of the system. Using the browser, client 10 accesses a video selection page on a first URL 20 over the network. An example of the video selection page is shown on Figure 2. In the embodiment shown, the client selects one of the videos identified on the video selection page by clicking on a still image representative of the video selection (as shown on Figure 2). In response to this selection, a request for the selected video is sent through the client's browser over the network to a server 22 on the first web site 20.

First URL 20 includes a database 24 which stores information associated with each of the videos available for download to the client. In the embodiment shown, several fields 24a, 24b and 24c are stored in the database for each of the videos. It will be understood that only some of these fields may be populated for different videos in the database. In the example shown in Figure 1, each video in the database is represented by a Video ID (field 24a). For each video in the database, one or more network addresses (at least some of which correspond to sites other than the first URL 20) are stored in field 24b. The network addresses represented in field 24b correspond to network locations (other than first URL 20) where video content (and optionally audio content) representative of each segment

67831-5001WO

of the video is stored. Playlist data filed 24c (discussed below) may include network locations (e.g., either at the first URL 20, or other sites such as URLs 30, 40 or 50) where content representative of tags and overlays associated with the video is stored.

For purposes of this disclosure, a tag corresponds to text, video, image or audio information which is associated with the video selected by the client. Examples of tags are a text tag that includes a comment about a particular portion or segment of the video selected by the client (shown in Figure 5), or still images corresponding to specific frames in the video selected by the client. Tags are visually linked to a time-bar (shown in Fig. 5) when displayed to the user. More specifically, each tag has associated time-bar coordinate information indicating a specific spatial location on the time bar where each of the one or more tags should be visually linked. As a user scrolls through the time-bar (using, e.g., the buttons shown on Fig. 5), each tag associated with the selected video is displayed to the user, along with the visual link to the appropriate location on the time-bar. Tags are displayed to the user independently of the playing of the selected video. Thus, even if the selected video is not playing, a user can scroll through the time-bar and view each of the tags associated with the video. Tags may include link information that allows a user to automatically retrieve further information by clicking on a representation of the tag when it is displayed on the browser.

For purposes of this disclosure, a video overlay is a virtual layer that fully or partially overlaps the selected video during playback. Associated with each overlay is timing information indicating when to display the overlay during playing of the video, and location information indicating a coordinate (e.g., an x-y coordinate) within the video where the overlay should be initially displayed, and transition/effect information related displaying the overlay while it is visible. Overlays can be transparent (i.e., content from the selected video is visible through the overlay) or blocking. An example of a blocking overlay is the video

67831-5001WO

box on the lower left portion of Figures 4A and 4B. The hotlink “dolphins at [www.dolphins.org](http://www.dolphins.org)” shown in Figure 4C is a partially transparent overlay. Overlays can move and transition during their time period (such as the one corresponding to images in Figures 4A and 4B, where from time 4:32 to 7:01, the image “tweens” from one location to a next and changes in size.) Overlays (such as the one corresponding to “dolphins at [www.dolphins.org](http://www.dolphins.org)” in Figure 4C) may include link information that allows a user to automatically retrieve further information by clicking on a representation of the overlay when it is displayed (either in a transparent or blocking format) on the browser.

For each video in database 24, the database also includes a reference to playlist data 24c (stored on the first website 20) for the video. The playlist data includes sequence and timing information for playing each segment of the video selected by the client, timing information indicating when to display each overlay during playing of the video, location information indicating a coordinate within the video for displaying each overlay, transition/effect information specifying how to manipulate the overlay (e.g., how to move the overlay, or change it’s size, or cause a fade/dissolve, over time), and time-bar coordinate information indicating a spatial location on a time bar where each of the one or more tags should be visually linked. An example of such playlist data is shown in Figures 3A and 3B. The playlist data shown in Figure 3A and the tables entitled “Overlay Playlist” on Figure 3B and “Overlay Transition/Effect” on Figure 3C correspond to playlist data stored in database 24 for a specific overlay. The playlist data shown in the table entitled “Tag Playlist” on Figure 3B correspond to playlist data stored in database 24 for a specific tag.

Referring still to Figure 1, in response to receipt of the request from client 10 for a selected video, the server 20 sends at least the following to the client 10: (i) a first uniform resource locator (URL) corresponding to a location on the network where content of the selected video is stored, (ii) a second URL corresponding to a location on the network

67831-5001WO

where information corresponding to an overlay/tag associated with the video is stored, and (iii) playlist data associated with the selected video. The first and second URLs are different. In some embodiments where, for example, the video includes different segments stored at different locations, or has multiple overlays/tags associated therewith, additional URLs

5 corresponding to further network locations will be sent from server 20 to the client in response to the request. Controller 12 (at the client) uses the first and second URLs (and any other URLs sent by server 20) to retrieve the video content (from, e.g, URL 30, 40 or 50) and content represented of each associated overlay/tag (from, e.g, URL 20, 30, 40 or 50), using the URL information provided by server 20. Controller 12 uses the playlist data to build a

10 playlist. The controller 12 sequences and merges the video content and each associated overlay into an integrated media sequence that is played to the user via the browser using player 14 and in accordance with the playlist. Controller 12 also uses the playlist to build the time-bar and display the one or more tags visually linked to the time bar. Set forth in Table I below is exemplary code illustrating the how (in one embodiment) controller 12 buildd the

15 time-bar and displays the one or more tags visually linked thereto:

**Tag/Comment Management Module**

For selected video id{

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.

20 Retrieve entire corresponding playlist for this video from the database

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.

Build integrated timeline of timepoints (ie, dots array) based on  
playlist

25 .  
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67831-5001WO

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On Event:
video playing and video.time "near" timepoint
or mouse enters timepoint {
    Show Content(type) // text, image, video, or audio
5      }
    On Event:
video.time "near" timepoint + timepoint.duration
or mouse exits timepoint {
    Hide tag.content
10      }
.
.
} Endfor

15 Show Content Function
    {
.
.
    Case content.type = text
        Show text
20    Case content.type = image
        Get image URL
        Show image
    Case content.type = video
        Get video URL
25        Play video
    Case content.type = audio
        Get audio URL
        Play audio
.
30    .}

```

Table I

During the playing of the integrated media sequence, the user may be automatically linked to further content associated with an overlay/tag when the user clicks on

67831-5001WO

a representation of the overlay/tag displayed on the browser. This further content may be stored on URL 20, or on URL 30, 40 or 50.

The playlist data sent from the server to the client optionally includes references to a plurality of different overlays associated with a single video, wherein content associated with each of the different overlays is stored at a different URL in the network. In a specific embodiment, the content associated with the overlay is stored at a third URL on the network, such that the first, second and third URLs are associated with different servers on the computer network. In further embodiments, the playlist data sent from the server to the client includes references to a plurality of different tags associated with a single video. In such embodiments, the content associated with at least one of the tags may be stored on the server 20, and may include one or more frames (i.e., still images) of the single video. Also, in such embodiments, the content associated with at least one of the tags is stored at a third URL on the network, wherein the first, second and third URLs are associated with different servers on the computer network.

Finally, it will be appreciated by those skilled in the art that changes could be made to the embodiments described above without departing from the broad inventive concept thereof. It is understood, therefore, that this invention is not limited to the particular embodiments disclosed, but is intended to cover modifications within the spirit and scope of the present invention as defined in the appended claims.

67831-5001WO

What is claimed is:

1. A method for displaying a video with an overlay, comprising:

(a) using an application that runs through a browser on a client to send a request from the client to a server over a computer network;

5 (b) in response to the request, sending at least the following from the server to the client: at least a first uniform resource locator (URL) corresponding to a location on the network where the video is stored, at least a second URL corresponding to a location on the network where the overlay is stored, and playlist data that includes at least sequence information for playing each segment of the video, timing information indicating when to  
10 display the overlay during playing of the video, and location information indicating a coordinate within the video for displaying the overlay; wherein the first and second URLs are associated with different servers on the computer network;

(c) using at least the first and second URLs at the client to retrieve the video and the overlay;

15 (d) using the playlist data at the client to build a playlist and merge the video and the overlay into an integrated media sequence, and playing the integrated media sequence to a user via the browser in accordance with the playlist; and

(e) automatically linking the user to content associated with the overlay during the playing of the media sequence when the user clicks on a representation of the overlay  
20 displayed on the browser.

2. The method of claim 1, wherein the overlay comprises a video overlay, an audio overlay or a text overlay.

3. The method of claim 1, wherein the playlist data sent from the server to the

67831-5001WO

client includes references to a plurality of different overlays associated with a single video, wherein content associated with each of the different overlays is stored at a different URL in the network.

4. The method of claim 1, wherein the content associated with the overlay, is  
5 stored at a third URL on the network, wherein the first, second and third URLs are associated with different servers on the computer network.

5. A method for displaying a video and a tag associated with the video, comprising:

(a) using an application that runs through a browser on a client to send a  
10 request from the client to a server over a computer network; wherein the server is associated with a first uniform resource locator (URL) on the computer network;

(b) in response to the request, sending at least the following from the server to the client: at least a second uniform resource locator (URL) corresponding to a location on the network where the video is stored, one or more tags associated with the video, and  
15 playlist data that includes at least sequence information for playing each segment of the video, and time-bar coordinate information indicating a spatial location on a time bar where each of the one or more tags should be visually linked; wherein the first and second URLs are associated with different websites on the computer network;

(c) using at least the second URL at the client to retrieve the video;

20 (d) using the playlist data at the client to build a playlist, and play the video and display the one or more tags visually linked to the time bar, wherein the video is played and the one or more tags are displayed to a user via the browser in accordance with the playlist; and

(e) automatically linking the user to content associated with each of the one or

67831-5001WO

more tags when the user clicks on a representation of a tag displayed on the browser.

6. The method of claim 5, wherein the playlist data sent from the server to the client includes references to a plurality of different tags associated with a single video.

7. The method of claim 6, wherein the content associated with at least one of the tags is stored on the server, and includes one or more frames of the single video.

8. The method of claim 6, wherein the content associated with at least one of the tags is stored at a third URL on the network, wherein the first, second and third URLs are associated with different servers on the computer network.

9. The method of claim 5, wherein each of the one or more tags corresponds to a comment about the video.

10. The method of claim 5, wherein each of the one or more tags corresponds to a time interval in the video.

11. The method of claim 5, wherein each of the one or more tags comprises a video tag, an audio tag or a text tag.

12. A system for displaying a video with an overlay, comprising:

(a) a client computer with a software application that runs through a browser and sends a request from the client to a server over a computer network;

(b) said server including software that, in response to the request, sends at least the following from the server to the client: at least a first uniform resource locator (URL) corresponding to a location on the network where the video is stored, at least a second URL corresponding to a location on the network where the overlay is stored, and playlist data that includes at least sequence information for playing each segment of the video, timing information indicating when to display the overlay during playing of the video, and location

67831-5001WO

information indicating a coordinate within the video for displaying the overlay; wherein the first and second URLs are associated with different servers on the computer network;

(c) a controller on the client computer that uses at least the first and second URLs and the playlist data at the client to retrieve the video and the overlay and build a  
5 playlist, and merge the video and the overlay into an integrated media sequence;

(d) a player on the client computer that plays the integrated media sequence to a user via the browser in accordance with the playlist; and

(e) wherein the integrated media sequence includes a link that automatically directs the user to content associated with the overlay during the playing of the media  
10 sequence when the user clicks on a representation of the overlay displayed on the browser.

13. A system for displaying a video and a tag associated with the video, comprising:

(a) a client computer with using a software application that runs through a browser on the client, and sends a request from the client to a server over a computer  
15 network; wherein the server is associated with a first uniform resource locator (URL) on the computer network;

(b) said server including software that, in response to the request, sends at least the following from the server to the client: at least a second uniform resource locator (URL) corresponding to a location on the network where the video is stored, one or more tags  
20 associated with the video, and playlist data that includes at least sequence information for playing each segment of the video, and time-bar coordinate information indicating a spatial location on a time bar where each of the one or more tags should be visually linked; wherein the first and second URLs are associated with different websites on the computer network;

(c) a controller on the client computer that uses at least the second URL at the

67831-5001WO

client to retrieve the video and the one or more tags, and that uses the playlist data to build a playlist;

(d) a player on the client computer, responsive to the playlist, that plays the video and displays the one or more tags visually linked to the time bar, wherein the video is  
5 played and the one or more tags are displayed to a user via the browser; and

(e) wherein each of the one or more tags includes a link that automatically directs the user to content associated with each of the one or more tags when the user clicks on a representation of a tag displayed on the browser.

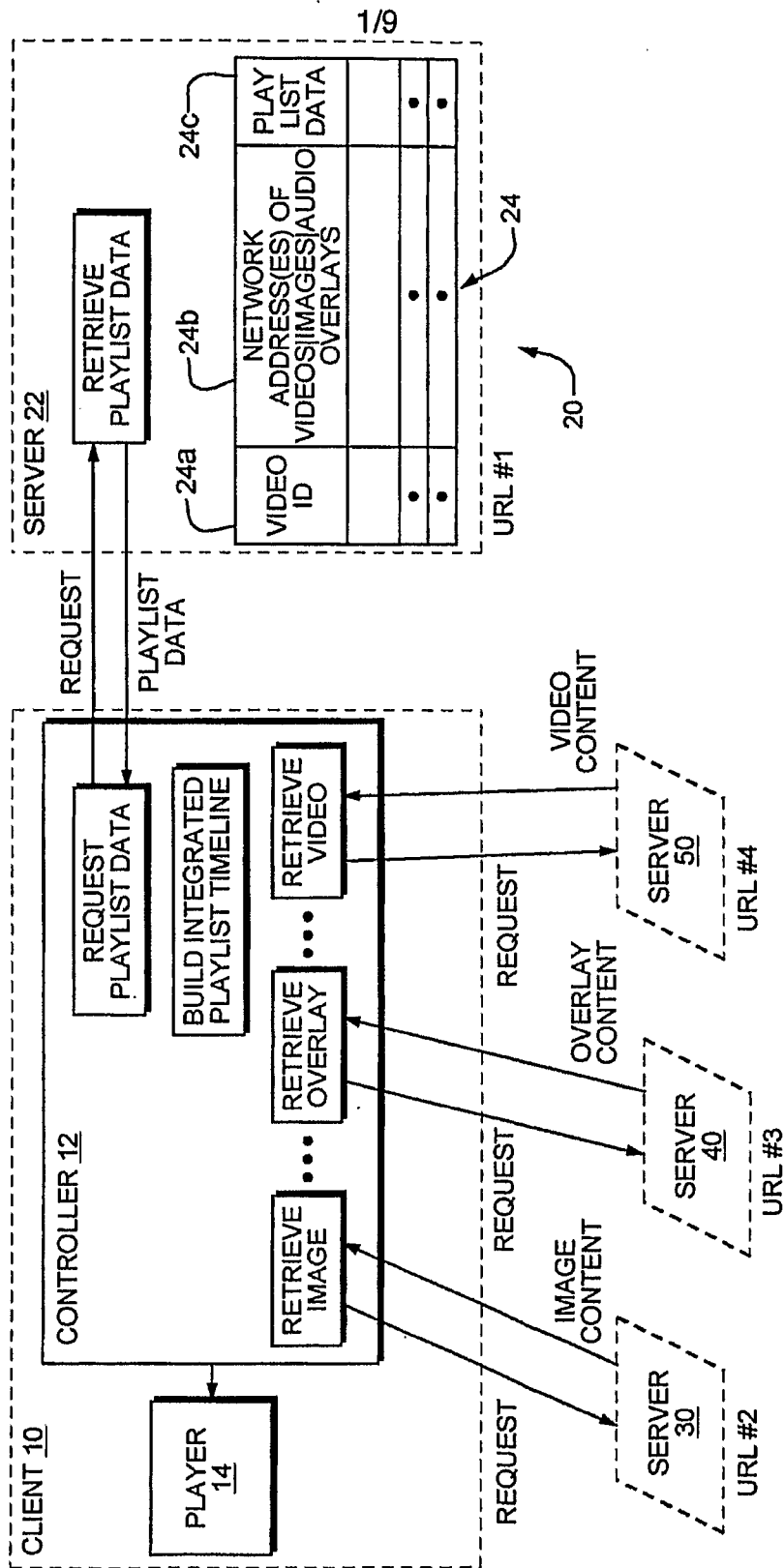


FIG. 1

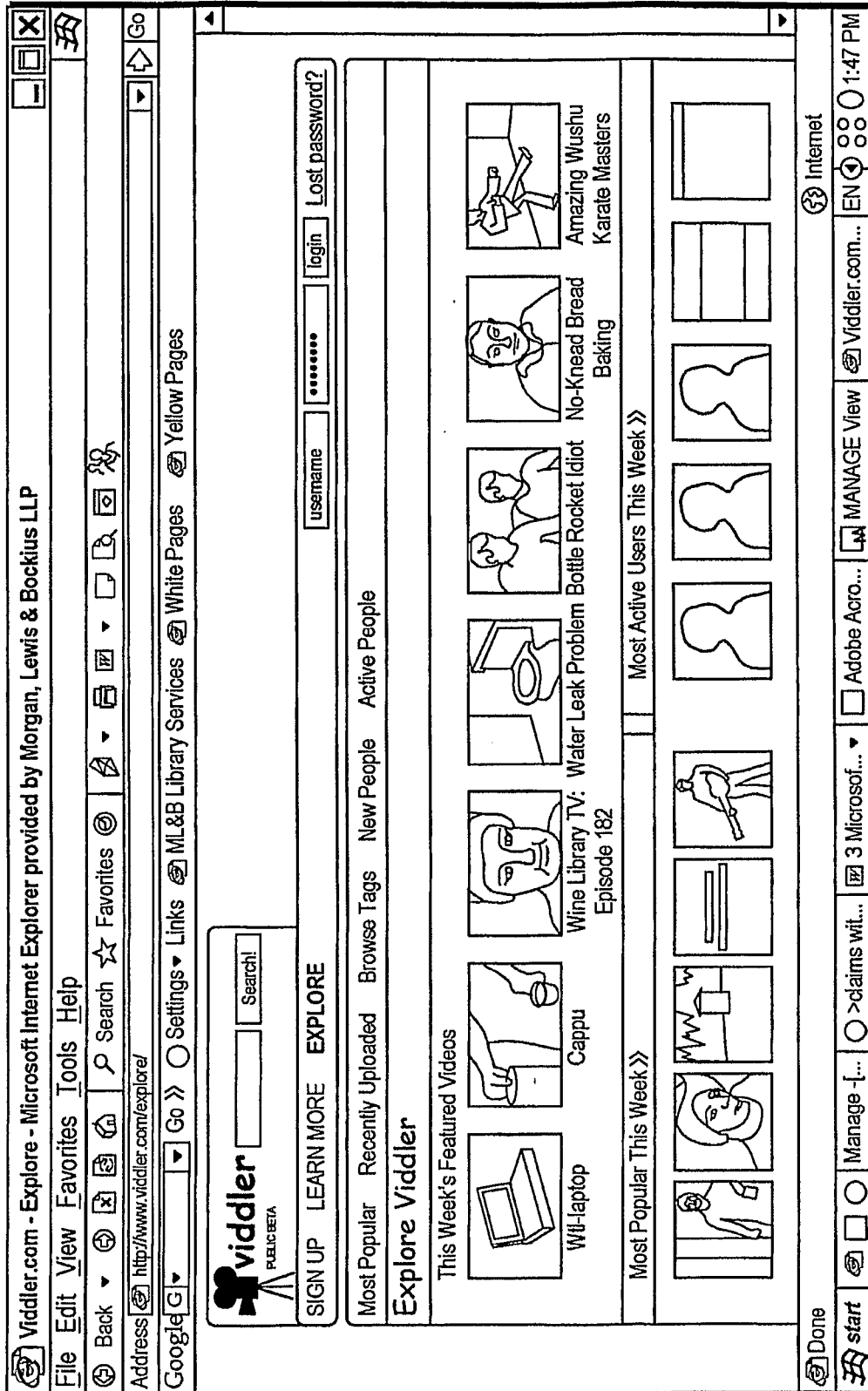


FIG. 2

FIELD	DESCRIPTION	EXAMPLE
OVERLAY ID	UNIQUE IDENTIFIER	123
VIDEO ID	ID OF CORRESPONDING VIDEO	5432
POSTER ID	USER ID FOR PERSON WHO POSTED OVERLAY	93
START TIME	RELATIVE TIME WITHIN VIDEO THAT OVERLAY STARTS	29 SECONDS
DURATION	TIME DURATION OVERLAY SHOULD BE VISIBLE	60 SECONDS
COORDINATES	X, Y & ALPHA LOCATION OF OVERLAY ON VIDEO	35x64x100
OVERLAY THUMBNAIL	IMAGE OF OVERLAY	5432_12.6.jpg
DATE ADDED	DATE COMMENT IS CREATED	APRIL 29, 2006, 16:40:29
TEXT	TEXT, INCLUDING HYPERLINKS	"WOW THIS IS COOL"
IMAGE URL PATH	LOCATION OF STILL IMAGE OVERLAY	http://stgo.viddler.com/storage/images/5432_29
VIDEO URL PATH	LOCATION OF VIDEO OVERLAY FILE	rtmp://viddler.fcod.ltnwd.net/a970/o10
VIDEO LENGTH	DURATION OF VIDEO OVERLAY	120 SECONDS
AUDIO URL PATH	LOCATION OF AUDIO FILE	http://www.viddler.com/explore/sandiemanaudio/118_02/

FIG. 3A

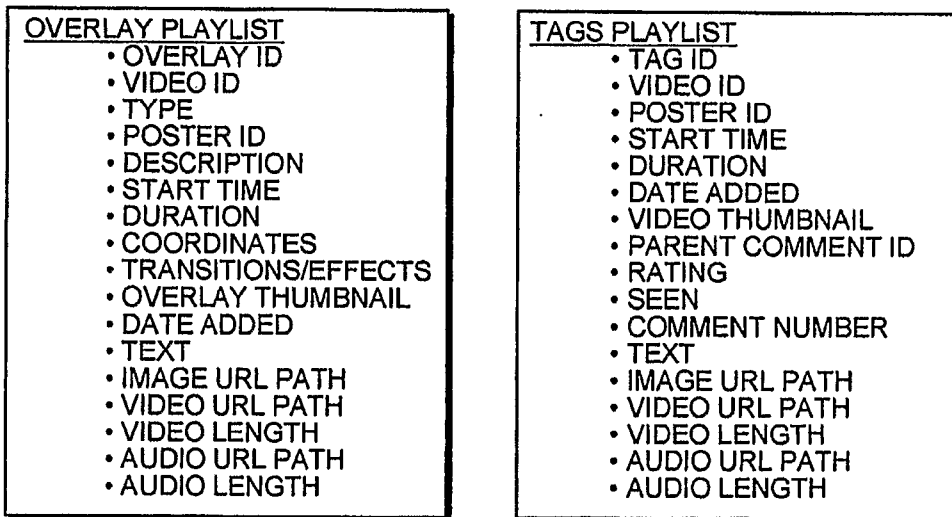


FIG. 3B

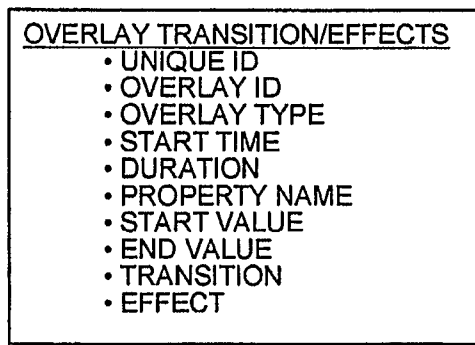


FIG. 3C

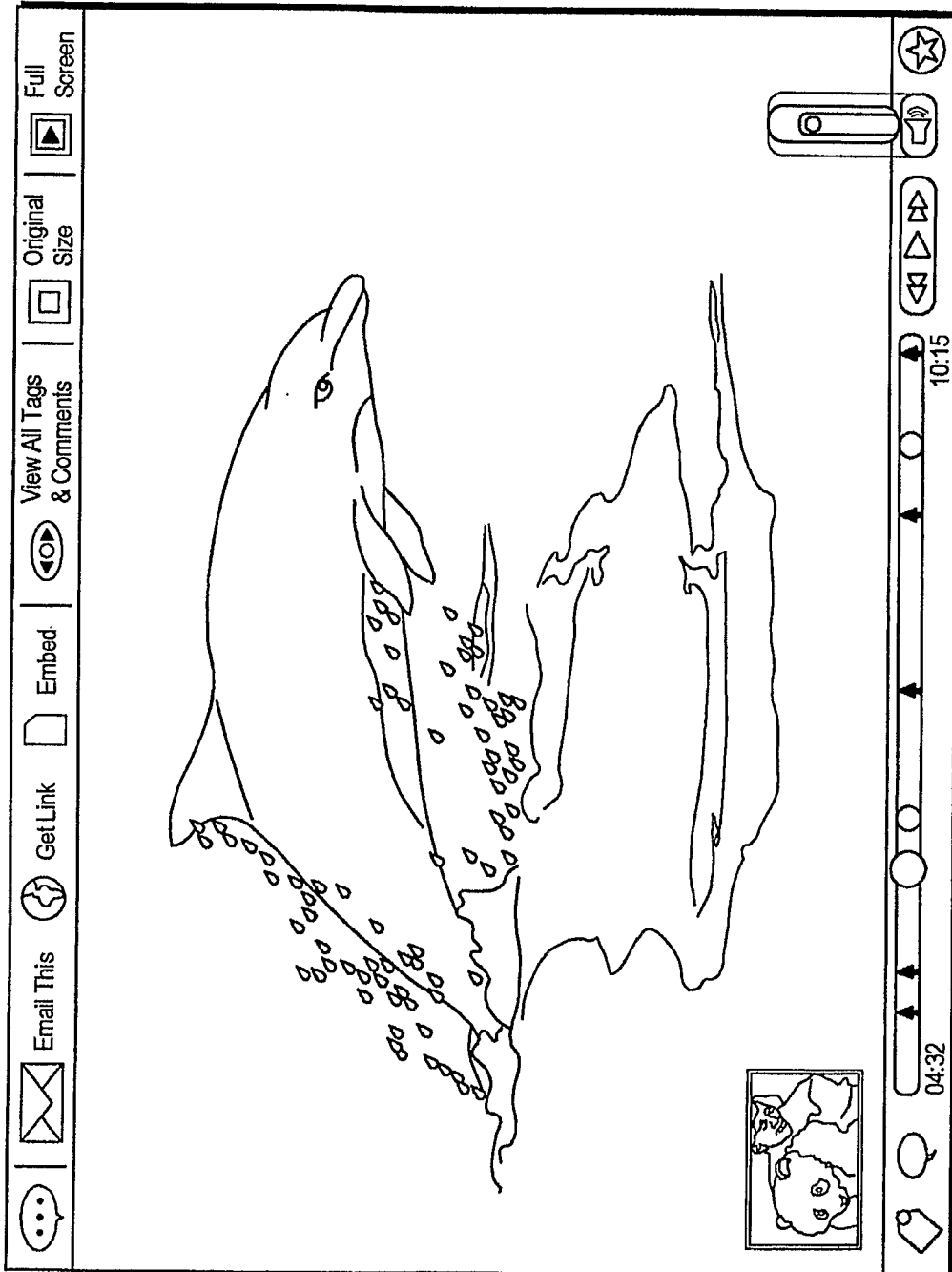


FIG. 4A

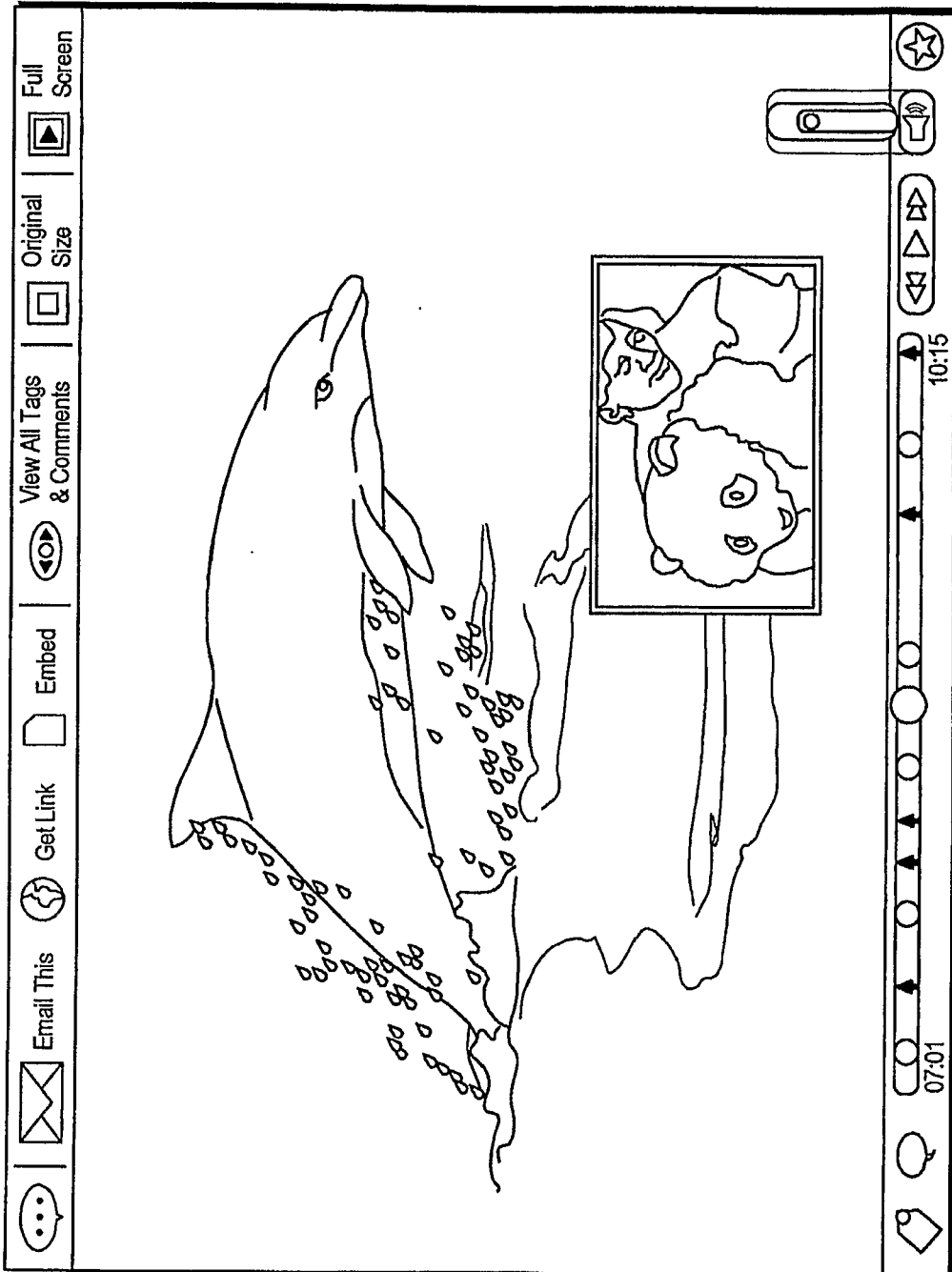


FIG. 4B

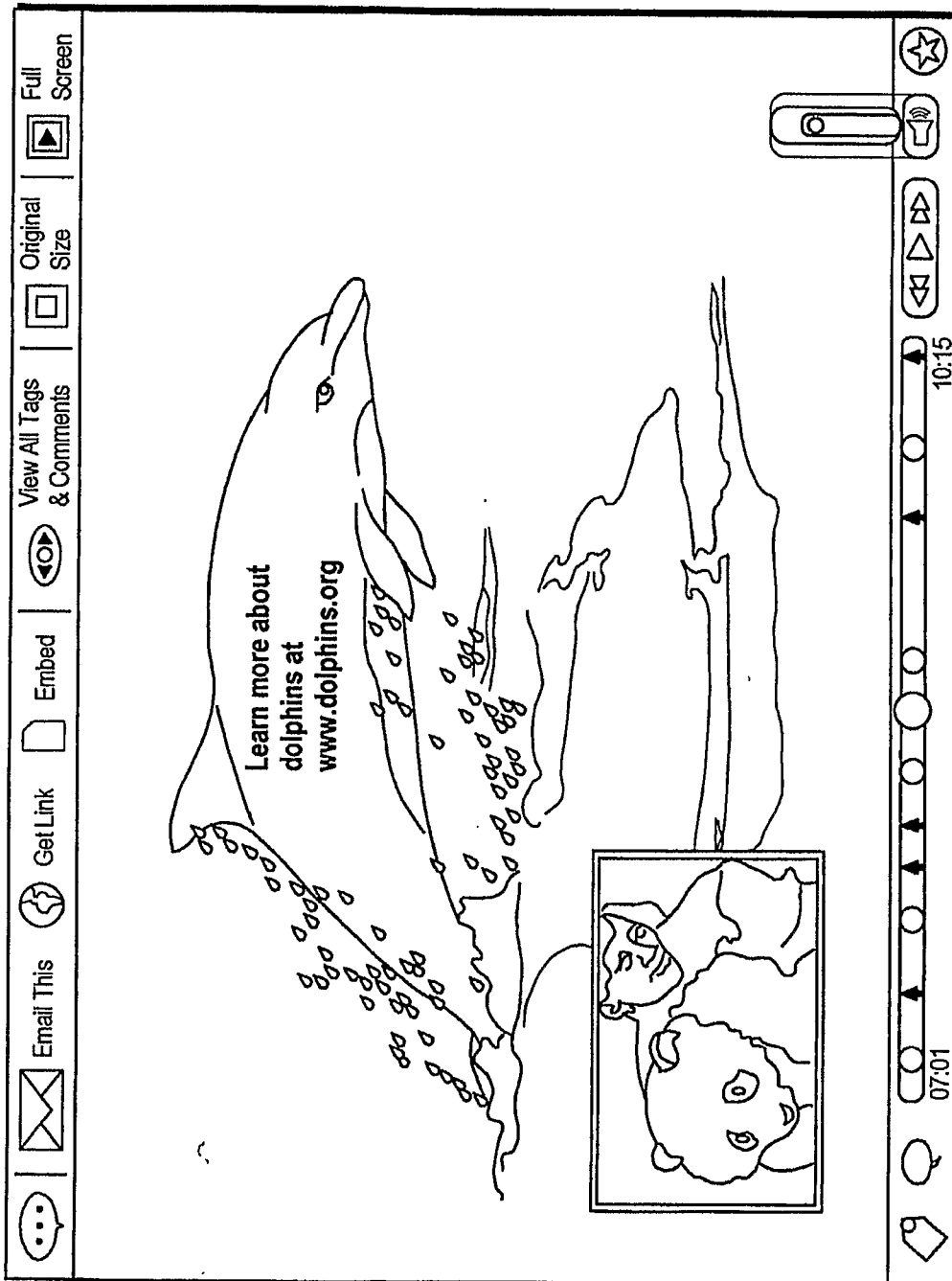


FIG. 4C

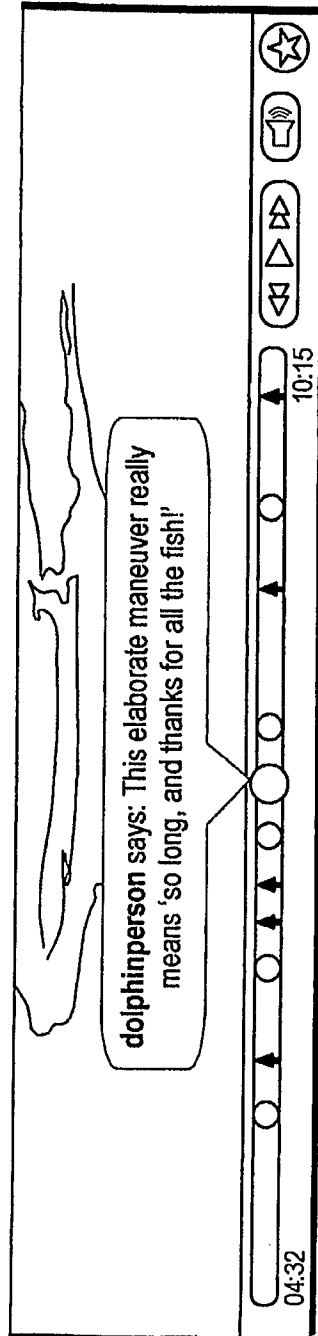


FIG. 5