FIG. **2** depicts a section of film having particular points thereon marked;

FIG. **3** is a blow up of a section of the film of FIG. **2** including frames of footage shot of landscape scenery as one is traveling on a road;

FIG. **4** shows a rotary device located on a scale of positions, wherein "MAX" indicates a braking position and "0" indicates another braking position;

FIG. **5** depicts a braking position such as a "wall" wherein the viewer input device will be stopped and bounced back upon impact;

FIG. **6** depicts a viewer input device in communication with a brake;

FIG. **7** is a blow up of the flex coupling device depicted in FIG. **6**;

FIG. **8** depicts another embodiment of a viewer input device in communication with a brake;

FIG. **9** illustrates the memory device responsible for the brake value depending on whether the rotatory device has reached MAX or 0 as depicted in FIG. **4**;

FIG. **10** shows a portion of a DC circuit for turning off and on the brake of the present invention;

FIG. **11** shows a typical pulse width modulation which is capable of signalling the brake to turn off and on;

FIG. **12** shows a quadrature signal configuration used in accordance with the present invention to indicate in which direction the viewer is turning the user input device;

FIG. **13** is a circuit diagram of a circuit providing some finctions of the present invention;

FIG. **14** depicts the variation in speed and direction a viewer provides to the system of the present invention through the viewer input device; and

FIG. **15** is a flow chart of a method in which the present invention provides the ability to apply the brake given the variations depicted in FIG. **14**.

DETAILED DESCRIPTION OF THE INVENTION

The present invention includes a system and method for composing content data which is correlated with prerecorded visual data so that it can be played back as a viewer "browses" through the frames. Moreover, the present invention further includes a system and method for providing a viewer with the ability to experience in a haptic manner the content of the video as he or she uses the viewer input device to browse through the frames.

Turning to FIG. **1**, a combined system is shown. That is, the schematic includes both the creation hardware and the play back hardware. These systems are more typically separated into two different systems but are combined in FIG. **1** for economy. In both the creation and the play back systems, the prerecorded medium is viewed on a display apparatus **11**.

In the composition mode, the operator views the apparent motion of the prerecorded image data at a speed which is suitable for composing content data. A content data input device **12** may be any type of input device such as a key board or mouse and can be in communication with another display device (not shown). As the operator views the prerecorded image data, the operator can determine which types of content characteristics are applicable to that data. For example, in composing content data, the operator finds edit-points, enters those points into a software program and then enters boundary constraints such as beginning points and end points.

On the other hand, instead of the operator composing the content data by hand and hand entering it into the system, the content data may also be composed by machine. That is, it can be automatically composed. For example, when the prerecorded visual data is being shot, the camera or camera rig can include sensors which sense the texture of a road or the uphill/downhill characteristics of the road. That information can be stored on the film stock so that when the film is played back, the content information is retrieved at the same time that the film is played. That content information can then be interpreted into braking commands and stored in a content data storage **16**. Alternatively, a sophisticated software program can be used to detect certain conditions to characterize those conditions, and to interpret them into brake commands which are stored in content data storage **16**.

As mentioned above, particular types of prerecorded visual data are well suited for haptic feedback in accordance with the present invention. For example, moviemaps, dollies and timelapses are particularly browseable. Moviemaps are distance-triggered sequences (triggered by using an encoder on the wheel of a camera rig and a camera capable of recording single-frames such as one frame every meter) where the camera is pointing in the direction of movement; the effect is "moving forward." Dollies are distance-triggered sequences with a camera pointing sideways to the direction of motion while for example, carefully arcing the camera around a sculpture recording one frame per degree of arc to provide browseable footages. Timelapses are time-triggered sequences with a stationary camera but where time intervals are exaggerated (such as by recording one frame per minute for 24 hours).

Unlike conventional video, in the above discussed browseable movie applications, there is no "correct" frame rate at which to view such footage. By providing an end-user control, the viewer feels a sense of movement or travel through the visual material. In a moviemap, where the footage is taken from a car as the car is moving in the forward direction down a road, content data could be created so that it is correlated to dips and bumps the footage has captured as the car advances. In that case, data simulating the texture of the ride in the car is created.

On the other hand, where the footage is taken from the front of a bicycle which is moving in the forward direction up a hill, the content data could be created so that it is correlated to the effects of gravity on the rider as the bicycle advances. In that case, data simulating the pull of gravity on the bicycle is created.

Moreover, the footage may be taken from a skateboard as it ridden through a concrete skateboard course. As the skateboard advances up one of the curved walls of the course, it reaches a point where it has lost momentum and therefore can go no further in that particular direction. The skateboarder would then change direction and head down the same curved wall, continuing in the forward direction. In that case, a boundary constraint has been reached. When the point is reached where the skateboarder can go no further in a particular direction, data simulating the boundary constraint is created. The boundary constraint in the case of the skateboarder need not be absolute, thus allowing the skateboarder to change direction and head down the same curved wall. When the skateboarder crashes, then the boundary constraint is absolute.

Referring to FIG. **1**, the content data input device **12** is in communication with a processor **13**. (Processor **13** can serve all of the functions described herein or each function can be carried out by individual processors.) The data used to