

12/29/2004

Digital Memorabilia (the Concept patent pending.)

A design concept that incorporates video and collectible memorabilia into a unified package that combines the historical visualization and the actual collectible.



Objects could be any collectible from bats to helmets to jerseys etc.



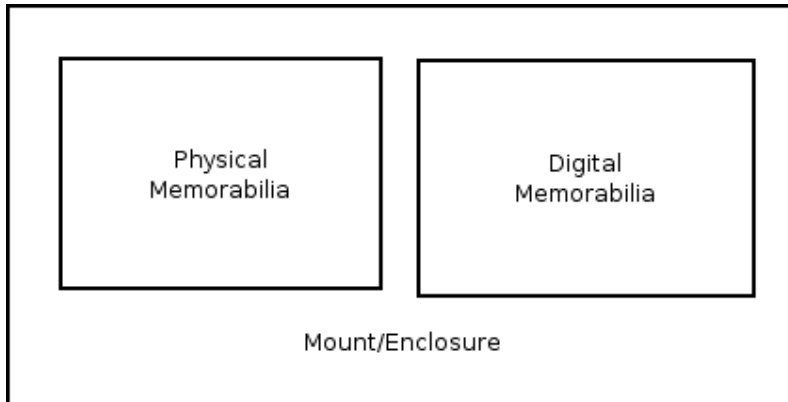
Clips could be of the actual signing, comments from the player, and actual footage.

The actual video could not be copied and could only be played through this device.

Digital Memorabilia

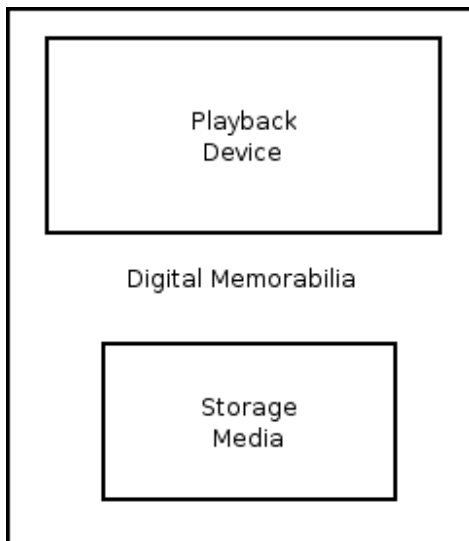
Concept

“Digital Memorabilia” is foremost thought of as a system that uses digitally stored content on a custom player device that integrates and enhances physical memorabilia. The typical distribution would combine an item of physical memorabilia with a “Digital Memorabilia” in a mount or enclosure.



Construction

The “Digital Memorabilia” comprises two parts: a playback device and some form of storage device that contains media content. Current technology allows for highly integrated playback devices that support video and audio playback and image display.



The combination of a custom playback device with the storage medium is a key feature of “Digital Memorabilia” to ensure:

- The long-term view ability of the content beyond technological changes
- Copy protection, security and authenticity of the media
- Safeguards from data loss on aging media

Device

The “Digital Memorabilia” device is an integrated media player with the following components:

Speaker – Integrated speaker for audio playback in media content.

Screen – Integrated LCD screen for video playback and image display as well as a graphical user interface.

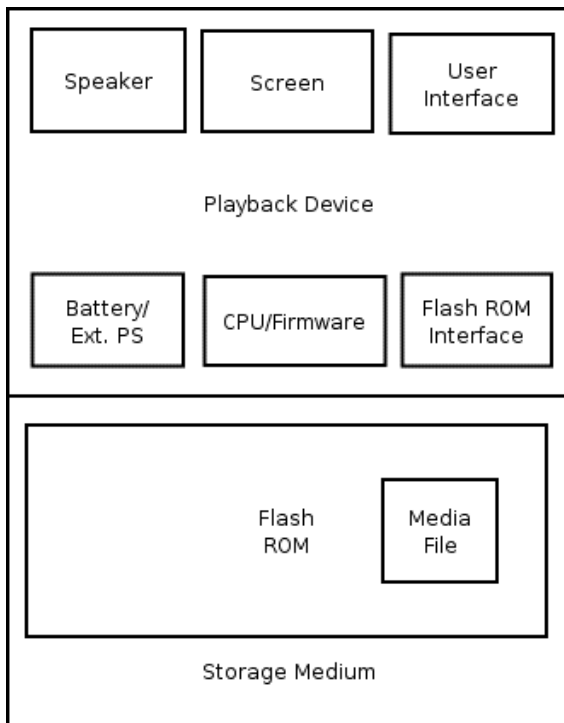
User Interface – Several buttons provide a user interface to control the device.

Battery/External Power Supply – Powers the device during playback or other functions.

CPU/Firmware – Operates the device and provided functions for video/audio decoding, decryption, authentication and data refresh.

Flash ROM Interface – Connects the player to the storage media.

Flash ROM – Storage media that contains the digital media files.

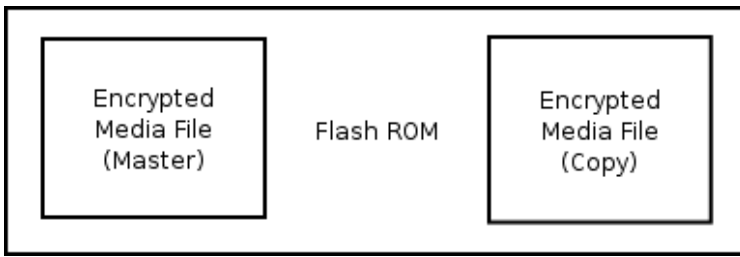


Media Storage

The choice of Flash ROM as media device (as compared to hard disks or CD-ROM) is important for “Digital Memorabilia” as it provides:

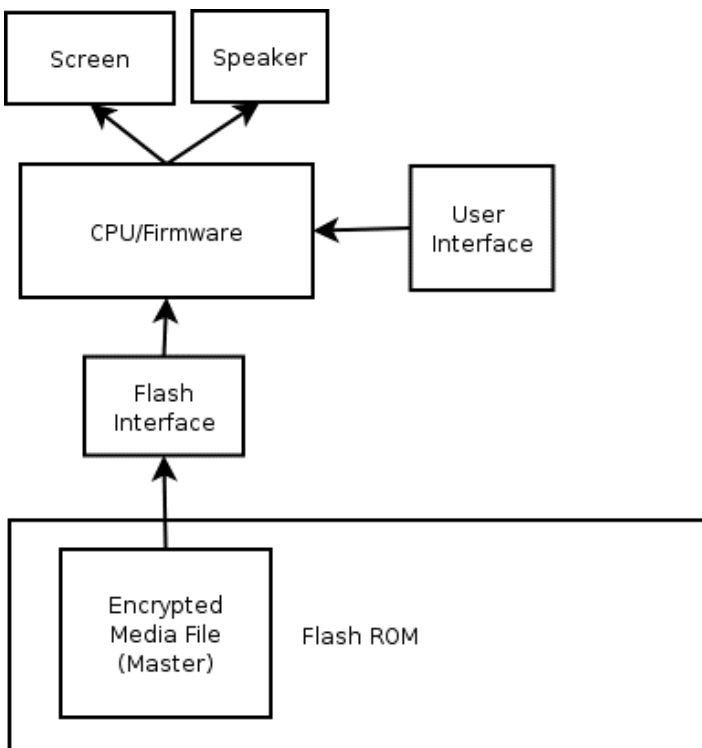
- In-device data-refresh capabilities to provide long-term data stability (i.e. 10+ years)
- Solid-state operation (i.e. no moving parts)

Furthermore, the system is designed to maintain and use a copy of the media file on the storage medium for optimal data protection.



Playback

Playback of the “Digital Memorabilia” is triggered by manual user input of the powered device. The media content is read from the Flash ROM, decrypted and decoded and played on the integrated Screen and Speaker.

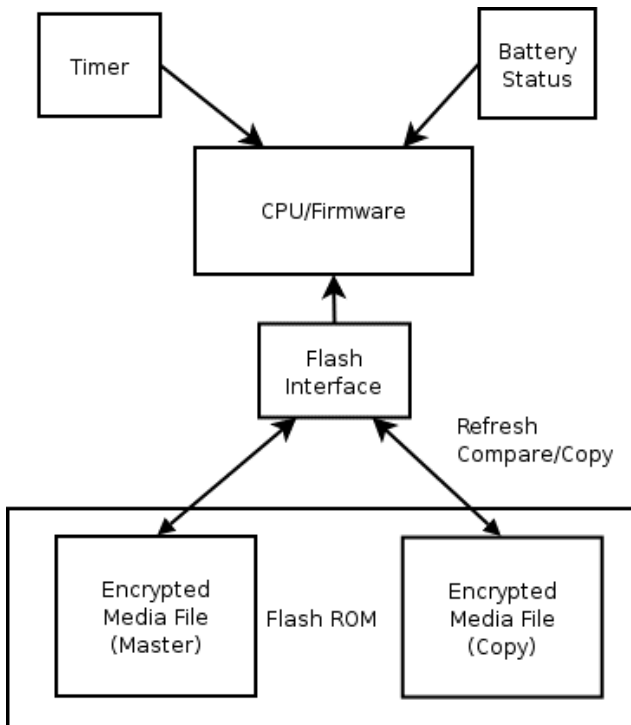


No external device is required for playback.

Refresh

Since reliable data retention on standard Flash ROM media is limited to about 10 years, occasionally a refresh cycle has to be run on the device. This process requires the device to be powered at least once every 10 years.

The process is triggered by a timer and the current battery status and operates automatic and independent of the playback functionality. The firmware reads the Master and the Copy of the content, compares and rewrites the copy to refresh the Flash storage.



Authentication

To authenticate the stored content as well as the player as a unique copy, “Digital Memorabilia” has the ability to create a digital fingerprint of the content. This fingerprint (an alphanumeric sequence) can be shown on the screen and compared to an archived copy to verify the authenticity of the content as well as the device.

If the device were replaced due to hardware failure, the fingerprint would change. A registrar for “Digital Memorabilia” can ensure save record keeping of the fingerprints to avoid fraud.

