ASSOCIATIVE DATA STORAGE SYSTEM FOR COLLECTABLE OBJECTS

Inventor: James J. Macor, Jackson, NJ (US)

Correspondence Address: JAMES J. MACOR P.O. BOX 1450 JACKSON, NJ 08527

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ABSTRACT
A data storage device for use in combination with at least one collectable object is described. The data storage device is formed detached from the collectable object. The collectable object is provided with tamper resistant visual markings. And, the data storage device is provided with tamper resistant visual markings associative with the visual markings of the collectable object so as to provide association of the data storage device with the collectable object. The data storage device is compatible with a standard computer system to provide a user with at least one predetermined characteristic of the collectable object with or without an external database.
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REFERENCES TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. patent application Ser. No. 11/493,312 filed on Jul. 26, 2006, by the inventor herein, entitled PROTECTION, AUTHENTICATION, IDENTIFICATION DEVICE FOR A COLLECTABLE OBJECT.

FIELD OF THE INVENTION

[0002] The present invention relates to the certification, authentication, identification and marketing of collectable objects such as coins, stamps, currency and baseball cards.

BACKGROUND OF INVENTION

[0003] An industry for authentication, identification and certification of collectibles has gained market prominence and certification companies such as the Professional Coin Grading Service (PCGS) and the Numismatic Guaranty Corporation (NGC) have developed protective collectable holders to protect collectable objects such as coins, stamps, currency, and baseball cards. They encapsulate the collectable object in a holder and provide a professional opinion for condition and authenticity. The holder is designed to be small and portable which necessitates a small label with visual markings that only allow for minimal marking space and information about the collectable object. Often times the owner would have a need to utilize an image of the collectable object for visual identification of the collectable object and further validation of certification authentication of that specific collectable object. The owner could also utilize the image of the collectable object for marketing purposes including auction and Internet sales, insurance records, and documentation of a collectables collection. In addition, the owner or buyer of a collectable object may want to know information relative to the collectable object such as historical information, collectable valuations, condition populations and other relevant information of that particular collectable object. Applicant believes an associative data storage system for collectable objects will significantly improve deficiencies with the current collectables certification industry.

SUMMARY OF THE INVENTION

[0004] The present invention involves a data storage device for use in combination with at least one collectable object. The data storage device is formed detached from the collectable object. The collectable object is provided with tamper resistant visual markings. The data storage device is provided with tamper resistant visual markings associated with the visual markings of the collectable object to provide association of the data storage device with the collectable object. The data storage device is compatible with a standard computer system to provide a user with at least one predetermined characteristic of the collectable object, with or without the use of an external database. In some embodiments, for example, the collectable object is a coin.

[0005] Recognizing the need for an improved authentication, identification and marketing device for collectable objects, the following objectives are considered:

[0006] It is an important objective of the present invention that it may provide for a portable holder that provides protection for valuable collectable objects such as coins, stamps, baseball cards, currency, autographs, etc.

[0007] It is another important objective of the present invention that it may provide for a holder of a collectable object that has tamper resistant visual markings of the collectable object.

[0008] It is another important objective of the present invention that it may provide for a separate, detached data storage device that has tamper resistant, associative visual markings of the collectable object, so as to provide association of the data storage device with the collectable object.

[0009] It is another important objective of the present invention that the data storage device may be compatible with a standard computer system.

[0010] It is another important objective of the present invention that it may provide a user with a data storage device that stores at least one digital image and/or at least one characteristic of a collectable object that can be viewed by means of a standard computer system, even when the collectable object is stored in a remote location from the data storage device.

[0011] It is another important objective of the present invention that it may provide for visual identification and authenticity of a collectable object by providing a means for easily accessing and comparing digital image/s of the certified collectable object and/or at least one unique characteristic, for example, strike, luster, color, defects, abrasions, centering, etc., of a collectable coin.

[0012] It is another important objective of the present invention that it may provide additional characteristics or data of a collectable object, such as a coin, for example, date of mintage, condition, production mintage, etc.

[0013] It is another important objective of the present invention that it may provide storage or access to historical information about the collectable object.

[0014] It is another important objective of the present invention that it may provide a data storage device for insurance verification and records documentation of a collectable object.

[0015] It is another important objective of the present invention that it may be linkable with an external database by means of a Hyperlink that it may provide the user with additional or corresponding information of a collectable object, for example, the certified population and current valuation of a coin, stamp, baseball card, etc.

BRIEF DESCRIPTION OF DRAWINGS

[0016] FIG. 1 shows a right front perspective, exploded view of a collectable object combined with means of tamper resistant visual markings.

[0017] FIG. 2 shows a right front perspective, exploded view of a data storage device combined with means of tamper resistant visual markings.

[0018] FIG. 3 shows a right front perspective view of an embodiment of the present invention, which includes the example components shown in FIGS. 1 and 2, with each component being marked with tamper resistant associative markings.

[0019] FIG. 4 shows a right front perspective view of a present invention data storage device used in combination with a collectable object being a coin. In this embodiment a separate housing is formed to house both the data storage device and the collectable object.
FIG. 5 shows a diagram of a present invention associative data storage device used in combination with a collectable object being a coin, and, an interface with a traditional computer system having Internet capability.

**DETAILED DESCRIPTION OF THE DRAWINGS**

[0020] FIG. 1 shows a right front perspective, exploded view of a collectable object combined with means of tamper resistant visual markings. A collectable object provided with tamper resistant visual markings is a component of the present invention. A second component, a data storage device with tamper resistant visual markings, is illustrated and discussed in FIG. 2. FIG. 1 illustrates an example of a collectable object provided with tamper resistant visual markings 10. Coin 11 is illustrated only as a generic example of a collectable object, such as a coin. Other collectable objects such as stamps, currency, or baseball cards are additional examples of collectable objects that would also be applicable to the present invention. Furthermore, larger collectable objects, such as collectable automobiles and antiques would also be applicable to the present invention.

Label 5 is an example of a method that may provide visual markings of a collectable object, such as coin 11. Visual markings of coin 11 may include associative characteristics of coin 11, and may include collectable object descriptors, such as the date, the denomination, and a certification grade of coin 11. The certification grade of coin 11 refers to the condition grade of coin 11 as determined by a grading certification service. Coin 11 is provided with tamper resistant visual markings such as markings 7 and 9 shown. Markings 7 and 9 are protected by means of a tamper resistant holder comprised of an upper housing 3 and a lower housing 17, which enclose and protect coin 11 and label 5 with markings 7 and 9 as shown. A “holder” shall mean a device that holds at least one object. “Tamper resistant” shall mean resists alteration or disassembly. An example of such a tamper resistant holder, may be comprised of an upper housing 3, and a lower housing 17 that are formed to enclose and protect coin 11, and label 5. The holder may be made of a clear plastic, e.g., acrylic, and is designed to be tamper resistant by providing a means that will make it difficult for a user or owner to disassemble the holder once it has been assembled. This may be accomplished, for example, by a method that securely bonds upper housing 3 and lower housing 17 together, such as ultrasonic welding of the plastic mating surfaces during an assembly process. An inner structure, such as core component 15 may be used to hold coin 11 and label 5 to resist movement within the holder after the assembly process. Core component 15 may be comprised of a plastic material and holds coin 11 by means of a cut-through opening 13 and allows viewing of the front (obverse) and rear (reverse) of coin 11. Label 5 may also have an encoded barcode 9, and when read by an appropriate barcode reader device may provide additional characteristics of coin 11 and may also corroborate the visual markings of label 5.

[0023] FIG. 2 shows a right front perspective, exploded view of a data storage device combined with means of tamper resistant visual markings. Data storage device with tamper resistant visual markings 20 is used in combination with at least one collectable object also provided with tamper resistant visual markings (discussed in FIG. 1), and is detached from the collectable object. Data storage device with tamper resistant visual markings 20 may be comprised of a data storage device 29, a label 27 that provides a method for displaying visual markings 23, and a tamper resistant means to protect visual markings 23 and 25. Visual markings 23 and 25 are associative with the visual markings of the detached corresponding collectable object so to provide association of the data storage device with the collectable object. Tamper resistant visual markings may be provided for by means of a tamper resistant holder. An example of such a tamper resistant holder, may be comprised of an upper housing 21, and a lower housing 31 that are formed to enclose and protect label 27 as shown. The holder may be made of a clear plastic, such as acrylic, and may be designed to be tamper resistant by providing a means that will make it difficult for a user to disassemble the holder once it has been assembled. This may be accomplished, for example, by a method that securely bonds upper housing 21 and lower housing 31 together, such as ultrasonic welding of the plastic mating surfaces during an assembly process. Label 27 may provide a means for displaying associative visual markings of a collectable object, such as a coin, and may be displayed as collectable object descriptors, such as the date, the denomination, and a certification grade of the associated collectable object. Data storage device 29, such as a USB Flash Drive, which is illustrated as an example for use in the present invention for its compact size, and non-volatile memory (NVM) capability. However, many other examples of data storage devices could also be used such as a Flash Memory Card, PC Card, Memory Card, MultiMedia Card, Secure Digital Card, Memory Stick, xD-Picture Card and other compact sized, solid-state data storage devices. Additionally, a Radio Frequency Identification (RFID) data storage device could also be utilized with the present invention. For data security reasons, the data storage device 29 may comprise a Read-Only-Memory (ROM) condition that is immutable and may prevent a user from altering or erasing the data of the data storage device 29. “Immutable” shall mean data that is highly resistant to change or alteration. Data storage device 29 is used in combination of at least one collectable object, being formed detached from the collectable object, and storing data of at least one characteristic of the collectable object. Data storage device 29 is compatible with a standard computer system so it may provide a user with at least one characteristic of a collectable object, such as a coin, and may comprise data such as digital images of the coin, the date of minting, the production mintage, and condition certification grade. The digital images of the collectable object may provide authentication and identification of the unique characteristics of the collectable object (coin) such as, strike, luster, color, defects, abrasions, centering, date, mintmark, die variations, etc. Additional information such as historical information that is associated with the collectable coin may also be stored. Data storage device 29 may also contain predetermined external database links, such as the certification service’s private network, which may be in the form of Internet Hyperlinks, that also provide predetermined characteristics of the collectable coin, and/or other data, such as the current certification population and current valuation of the coin. Label 27 may also have a barcode 25, and when read by an appropriate barcode reader.
may also provide predetermined characteristics of the associated collectable object by means of an appropriate barcode reader device.

Fig. 3 shows a right front perspective view of an embodiment of the present invention, which includes the example components shown in FIGS. 1 and 2, with each component being marked with tamper resistant associative markings. Fig. 3 shows an embodiment of the present invention 50, which is comprised of a collectable object provided with tamper resistant visual markings 10, and a data storage device with tamper resistant visual markings 20. They are shown being capable of stored in the same holder 70. A collectable object provided with tamper resistant visual markings 10 nests in preformed cavity 73 of storage holder device 70. Also, a data storage device with tamper resistant visual markings 20 nests in preformed cavity 75 of storage holder device 70.

Fig. 4 shows a right front perspective view of a present invention data storage device used in combination with a collectable object being a coin. In this embodiment a separate housing is formed to house both the data storage device and the collectable object. Fig. 4 shows an embodiment of the present invention, that is comprised of a collectable object with tamper resistant visual markings 10, and a data storage device with tamper resistant visual markings 20. The collectable object is held in a holder that provides tamper resistant visual markings thereof, and, said data storage device comprises data of more than one predetermined characteristic of said collectable object.

A data storage device of claim 1, wherein said collectable object has more than one predetermined characteristic thereof, and, said data storage device comprises data of more than one predetermined characteristic of said collectable object.

A data storage device of claim 1, wherein said data storage device stores data of at least one digital image of the collectable object so as to assist a user in authentication of said collectable object.

A data storage device of claim 1, wherein at least one collectable object is held in a holder that provides said tamper resistant visual markings of said collectable object.

A data storage device of claim 1, wherein said data storage device is detachably held in a holder, and, said collectable object is held in the same holder as the data storage device is held.

A data storage device of claim 1, wherein, said data storage device is a solid-state Flash Memory storage device.

A data storage device of claim 1, wherein, said data storage device is a Radio Frequency Identification device (RFID).

A data storage device of claim 1, wherein the collectable object and the data storage device are both provided with visual markings that are encoded.

A data storage device of claim 1, wherein said collectable object is a coin.

A data storage device of claim 9, wherein said data storage device comprises predetermined characteristics of said coin including at least its date, condition and mintage.

A data storage device for use in combination with at least one collectable object; said data storage device being formed detached from said collectable object, said collectable object being provided with tamper resistant visual markings, said data storage device being provided with tamper resistant visual markings associated with the visual markings of said collectable object so as to provide association of said data storage device with said collectable object, and, said data storage device being compatible with a standard computer system to provide a user with at least one predetermined characteristic of said collectable object.

A data storage device of claim 11, wherein said collectable object has more than one predetermined characteristic thereof, and, said external database comprises data of more than one predetermined characteristic of said collectable object.

A data storage device of claim 11, wherein said external database stores data of at least one digital image of the collectable object so as to assist a user in authentication of said collectable object.

A data storage device of claim 11, wherein at least one collectable object is held in a holder that provides said tamper resistant visual markings of said collectable object.
15. A data storage device of claim 11, wherein said data storage device is detachably held in a holder, and, said collectable object is also held in the same holder as the data storage device is held.

16. A data storage device of claim 11, wherein, said data storage device is a solid-state Flash Memory storage device.

17. A data storage device of claim 11, wherein, said data storage device is a Radio Frequency Identification device (RFID).

18. A data storage device of claim 11, wherein the collectable object and the data storage device are both provided with visual markings that are encoded.

19. A data storage device of claim 11, wherein said predetermined external database is accessed via a UNIFORM RESOURCE LOCATOR (URL).

20. A data storage device of claim 11, wherein said collectable object is a coin, and, said external database comprises predetermined characteristics of said coin including at least its date, condition, mintage, population and valuation.

21. A data storage device for use in combination with at least one collectable object, said data storage device being formed detached from said collectable object and storing data of at least one predetermined characteristic of said collectable object, said collectable object being provided with tamper resistant visual markings, said data storage device being provided with tamper resistant visual markings associative with the visual markings of said collectable object so as to provide association of said data storage device with said collectable object, and, said data storage device being compatible with a standard computer system to provide a user with at least one predetermined characteristic of said collectable object, and, said data storage device being connectable with a predetermined external database via said computer system, to provide said user with at least one predetermined characteristic of said collectable object.

22. A data storage device of claim 21, wherein said collectable object has more than one predetermined characteristic thereof, and, said data storage device comprises data of more than one predetermined characteristic of said collectable object.

23. A data storage device of claim 21, wherein said collectable object has more than one predetermined characteristic thereof, and, said external database comprises data of more than one predetermined characteristic of said collectable object.

24. A data storage device of claim 21, wherein said data storage device stores data of at least one digital image of the collectible object so as to assist a user in authentication of said collectable object.

25. A data storage device of claim 21, wherein said external database stores data of at least one digital image of the collectible object so as to assist a user in authentication of said collectable object.

26. A data storage device of claim 21, wherein the at least one collectable object is held in a holder that provides said tamper resistant visual markings of said collectable object.

27. A data storage device of claim 21, wherein said data storage device is detachably held in a holder, and, said collectable object is also held in the same holder as the data storage device is held.

28. A data storage device of claim 21, wherein, said data storage device is a solid-state Flash Memory storage device.

29. A data storage device of claim 21, wherein, said data storage device is a Radio Frequency Identification device (RFID).

30. A data storage device of claim 21, wherein the collectable object and the data storage device are both provided with visual markings that are encoded.

31. A data storage device of claim 21, wherein said predetermined external database is accessed via a UNIFORM RESOURCE LOCATOR (URL).

32. A data storage device of claim 21, wherein said collectable object is a coin, and, said external database comprises predetermined characteristics of said coin including at least its date, condition, mintage, population and valuation.

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