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(54) **METHOD AND APPARATUS FOR DYNAMIC ENHANCEMENT OF VIDEO GAMES WITH VENDOR SPECIFIC DATA**

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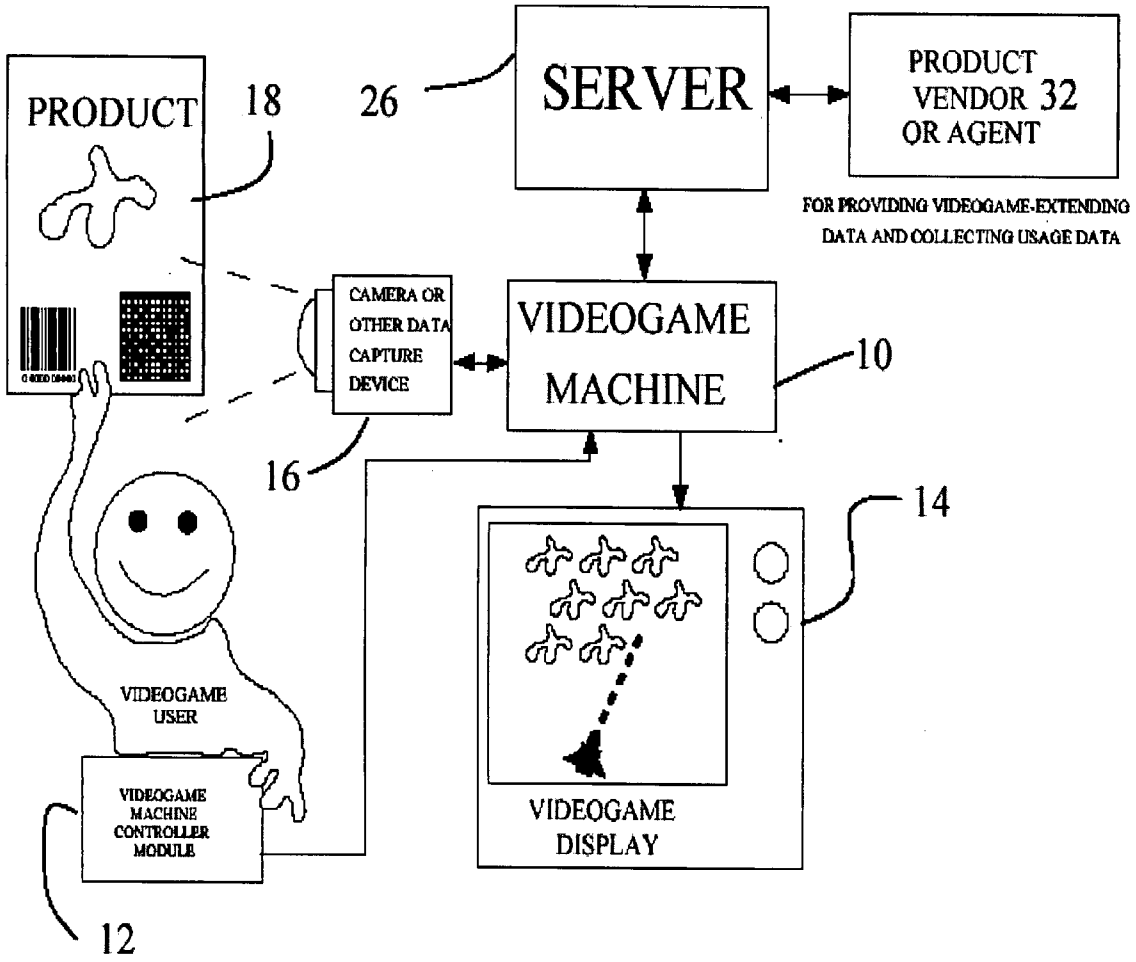
(57) **ABSTRACT**

An enhancement system for videogames employs data captured from a delivery vehicle associated with a vendor supplied product as a keycode to obtain or to directly provide data to enhance the videogame. Statistics on use of the enhancement data is then accumulated and reported to the vendor for marketing analysis. Opportunities for cross marketing for the vendor supplied product, the video game and the device on which the video game operates is provided by the system.



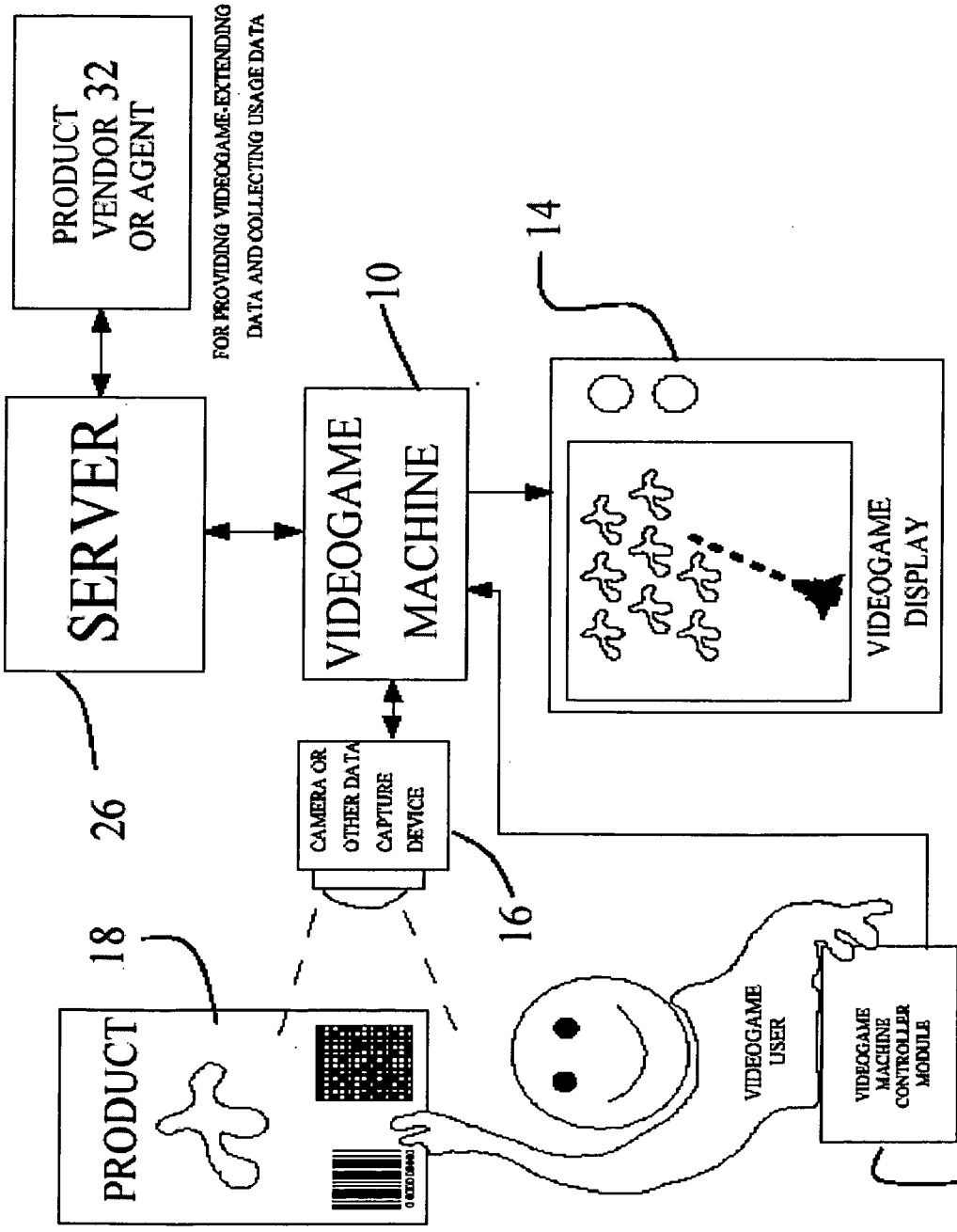

PRODUCT VENDOR OR AGENT 32
FOR PROVIDING VIDEOGAME-EXTENDING DATA AND COLLECTING USAGE DATA
SERVER
26
VIDEOGAME MACHINE
10
14
VIDEOGAME DISPLAY
CAMERA OR OTHER DATA CAPTURE DEVICE
16
18
PRODUCT
VIDEOGAME USER
VIDEOGAME MACHINE CONTROLLER MODULE
12

FIG. 1

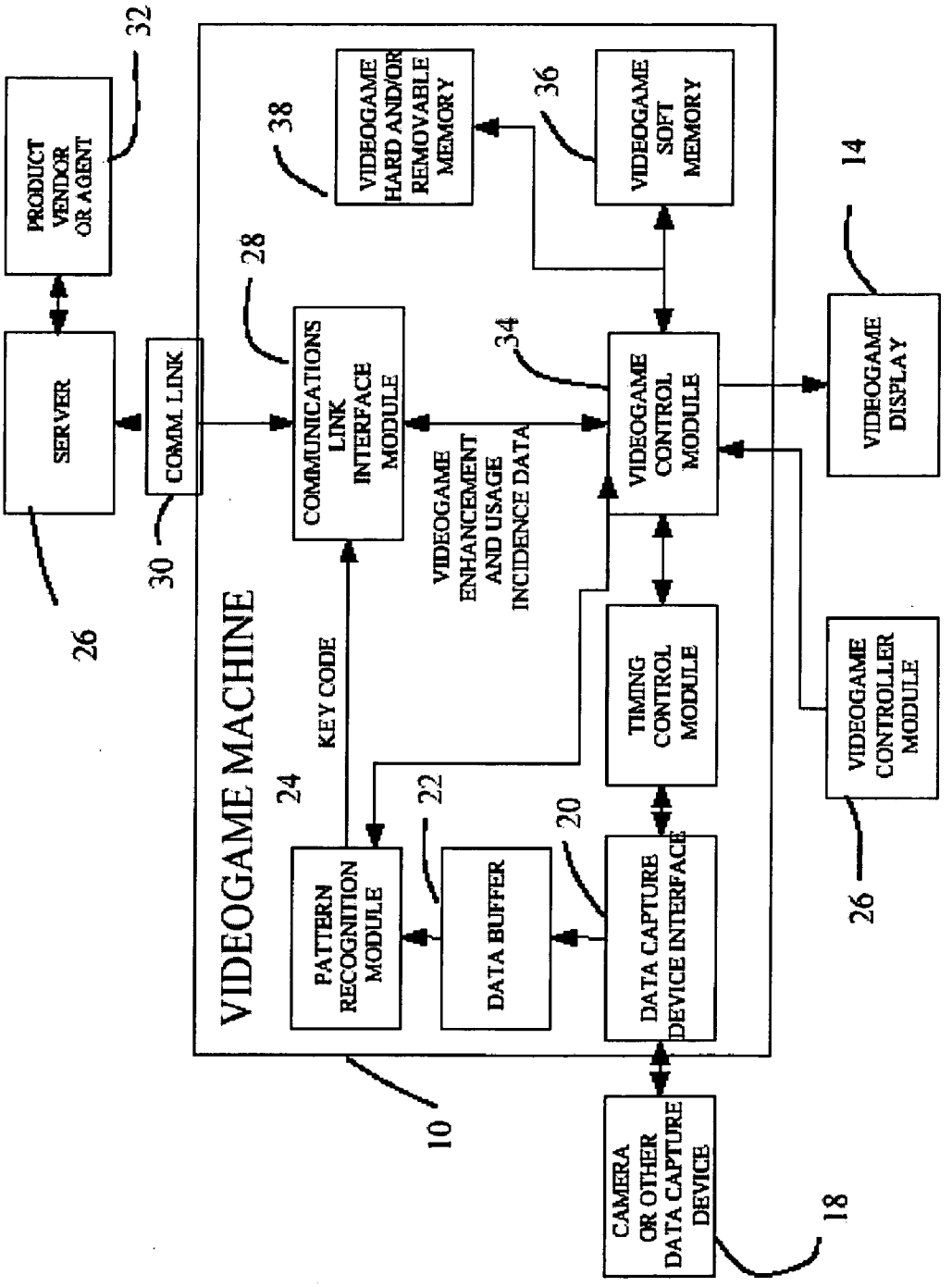

PRODUCT VENDOR OR AGENT
32
SERVER
26
COMM LINK
30
VIDEOGAME MACHINE
10
COMMUNICATIONS LINK INTERFACE MODULE
28
VIDEOGAME HARD AND/OR REMOVABLE MEMORY
38
VIDEOGAME SOFT MEMORY
36
VIDEOGAME CONTROL MODULE
34
VIDEOGAME DISPLAY
14
VIDEOGAME ENHANCEMENT AND USAGE INCIDENCE DATA
KEY CODE
24
PATTERN RECOGNITION MODULE
22
DATA BUFFER
20
DATA CAPTURE DEVICE INTERFACE
TIMING CONTROL MODULE
VIDEOGAME CONTROLLER MODULE
26
CAMERA OR OTHER DATA CAPTURE DEVICE
18

FIG. 2

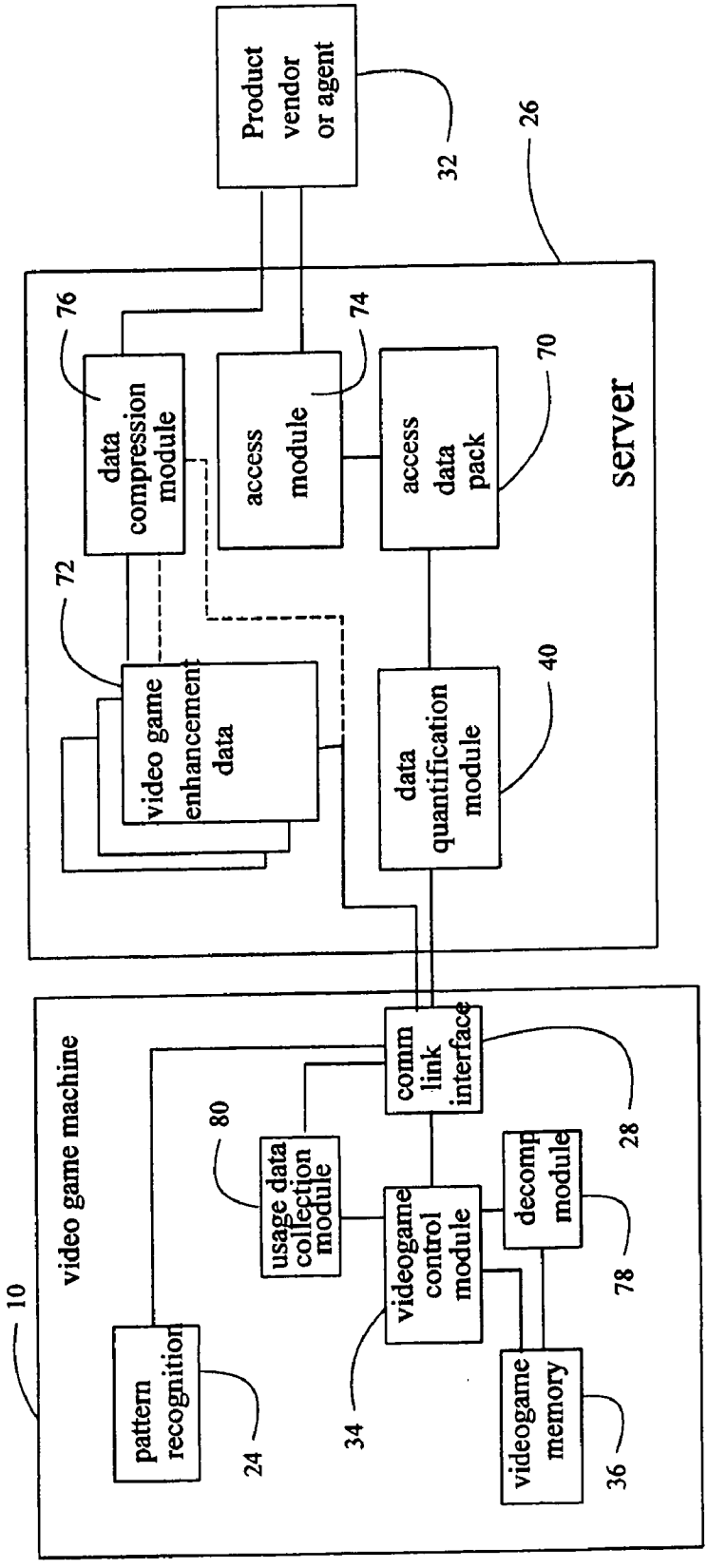

Product vendor or agent
32
26
server
data compression module
76
access module
74
access data pack
70
video game enhancement data
72
data quantification module
40
video game machine
10
comm link interface
28
usage data collection module
80
videogame control module
34
decomp module
78
pattern recognition
24
videogame memory
36

FIG. 3a

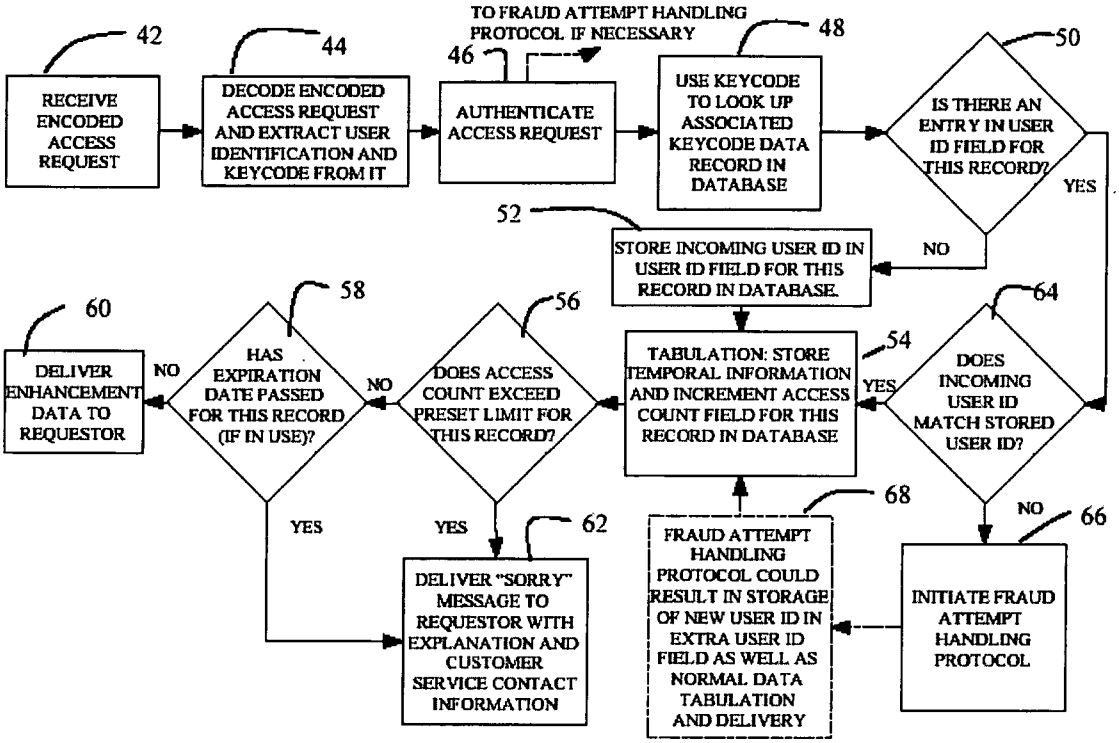

42
RECEIVE ENCODED ACCESS REQUEST
44
DECODE ENCODED ACCESS REQUEST AND EXTRACT USER IDENTIFICATION AND KEYCODE FROM IT
46
TO FRAUD ATTEMPT HANDLING PROTOCOL IF NECESSARY
AUTHENTICATE ACCESS REQUEST
48
USE KEYCODE TO LOOK UP ASSOCIATED KEYCODE DATA RECORD IN DATABASE
50
IS THERE AN ENTRY IN USER ID FIELD FOR THIS RECORD?
YES
NO
52
STORE INCOMING USER ID IN USER ID FIELD FOR THIS RECORD IN DATABASE.
64
DOES INCOMING USER ID MATCH STORED USER ID?
NO
66
INITIATE FRAUD ATTEMPT HANDLING PROTOCOL
68
FRAUD ATTEMPT HANDLING PROTOCOL COULD RESULT IN STORAGE OF NEW USER ID IN EXTRA USER ID FIELD AS WELL AS NORMAL DATA TABULATION AND DELIVERY
54
TABULATION: STORE TEMPORAL INFORMATION AND INCREMENT ACCESS COUNT FIELD FOR THIS RECORD IN DATABASE
YES
56
DOES ACCESS COUNT EXCEED PRESET LIMIT FOR THIS RECORD?
NO
58
HAS EXPIRATION DATE PASSED FOR THIS RECORD (IF IN USE)?
NO
60
DELIVER ENHANCEMENT DATA TO REQUESTOR
YES
YES
62
DELIVER "SORRY" MESSAGE TO REQUESTOR WITH EXPLANATION AND CUSTOMER SERVICE CONTACT INFORMATION

FIG. 3b

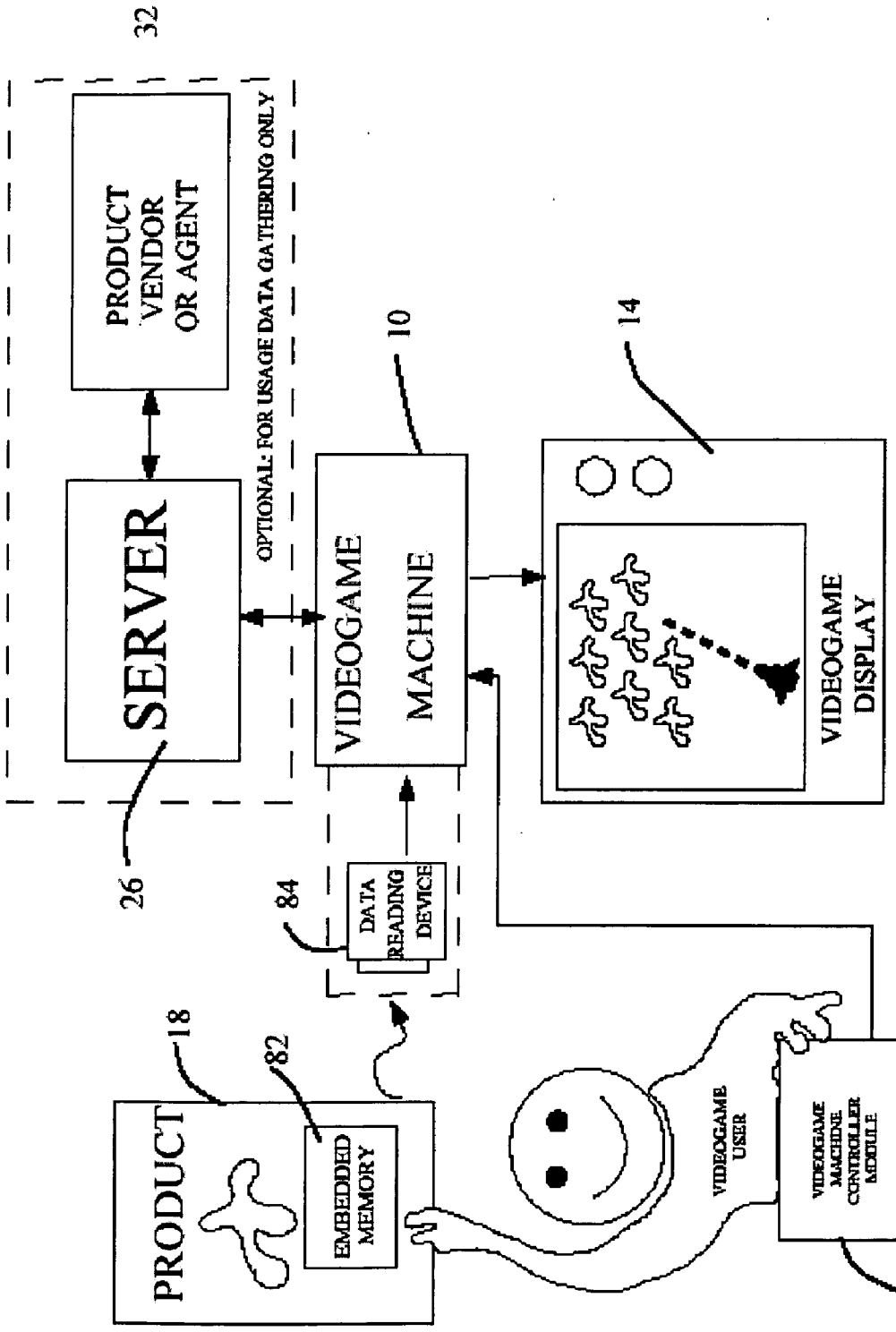

32
PRODUCT VENDOR OR AGENT
SERVER
OPTIONAL: FOR USAGE DATA GATHERING ONLY
26
10
VIDEOGAME MACHINE
14
VIDEOGAME DISPLAY
84
DATA READING DEVICE
18
82
PRODUCT
EMBEDDED MEMORY
VIDEOGAME USER
VIDEOGAME MACHINE CONTROLLER MODULE
12

FIG. 4

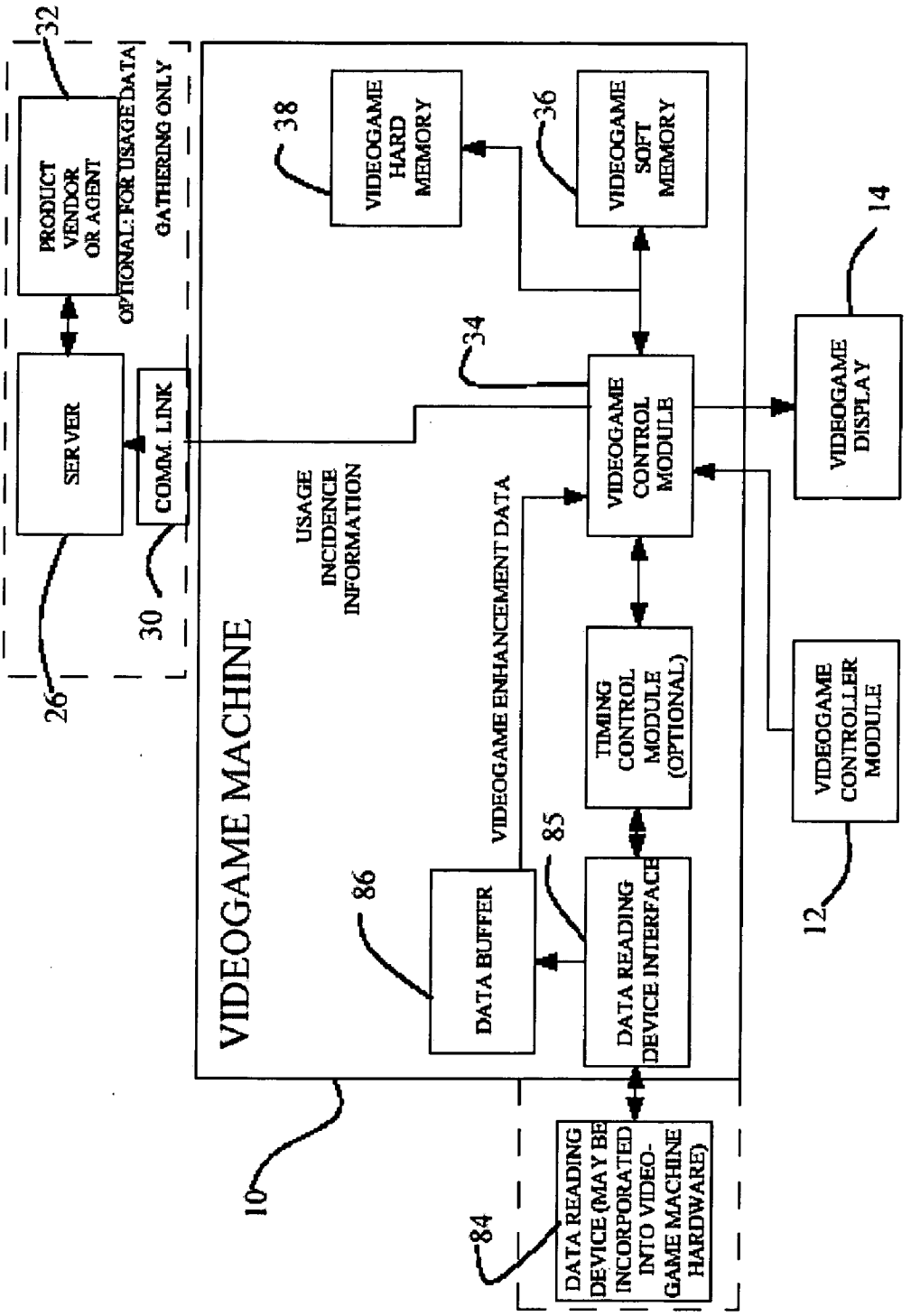

VIDEOGAME MACHINE
10
SERVER
26
PRODUCT VENDOR OR AGENT
32
OPTIONAL: FOR USAGE DATA GATHERING ONLY
COMM. LINK
30
USAGE INCIDENCE INFORMATION
VIDEOGAME HARD MEMORY
38
VIDEOGAME SOFT MEMORY
36
VIDEOGAME CONTROL MODULE
34
VIDEOGAME ENHANCEMENT DATA
TIMING CONTROL MODULE (OPTIONAL)
DATA BUFFER
86
DATA READING DEVICE INTERFACE
85
DATA READING DEVICE (MAY BE INCORPORATED INTO VIDEO-GAME MACHINE HARDWARE)
84
VIDEOGAME DISPLAY
14
VIDEOGAME CONTROLLER MODULE
12

FIG. 5

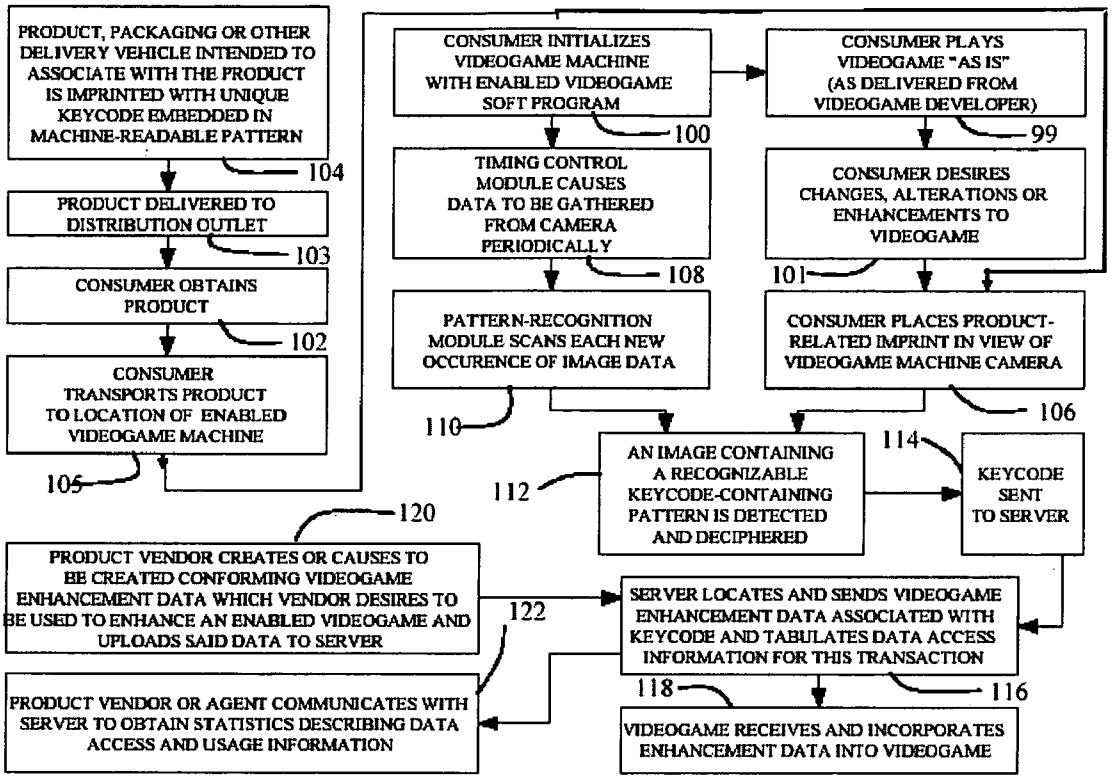

PRODUCT, PACKAGING OR OTHER DELIVERY VEHICLE INTENDED TO ASSOCIATE WITH THE PRODUCT IS IMPRINTED WITH UNIQUE KEYCODE EMBEDDED IN MACHINE-READABLE PATTERN
104
PRODUCT DELIVERED TO DISTRIBUTION OUTLET
103
CONSUMER OBTAINS PRODUCT
102
CONSUMER TRANSPORTS PRODUCT TO LOCATION OF ENABLED VIDEOGAME MACHINE
105
CONSUMER INITIALIZES VIDEOGAME MACHINE WITH ENABLED VIDEOGAME SOFT PROGRAM
100
TIMING CONTROL MODULE CAUSES DATA TO BE GATHERED FROM CAMERA PERIODICALLY
108
PATTERN-RECOGNITION MODULE SCANS EACH NEW OCCURENCE OF IMAGE DATA
110
CONSUMER PLAYS VIDEOGAME "AS IS" (AS DELIVERED FROM VIDEOGAME DEVELOPER)
99
CONSUMER DESIRES CHANGES, ALTERATIONS OR ENHANCEMENTS TO VIDEOGAME
101
CONSUMER PLACES PRODUCT-RELATED IMPRINT IN VIEW OF VIDEOGAME MACHINE CAMERA
106
AN IMAGE CONTAINING A RECOGNIZABLE KEYCODE-CONTAINING PATTERN IS DETECTED AND DECIPHERED
112
114
KEYCODE SENT TO SERVER
120
PRODUCT VENDOR CREATES OR CAUSES TO BE CREATED CONFORMING VIDEOGAME ENHANCEMENT DATA WHICH VENDOR DESIRES TO BE USED TO ENHANCE AN ENABLED VIDEOGAME AND UPLOADS SAID DATA TO SERVER
122
SERVER LOCATES AND SENDS VIDEOGAME ENHANCEMENT DATA ASSOCIATED WITH KEYCODE AND TABULATES DATA ACCESS INFORMATION FOR THIS TRANSACTION
118
116
PRODUCT VENDOR OR AGENT COMMUNICATES WITH SERVER TO OBTAIN STATISTICS DESCRIBING DATA ACCESS AND USAGE INFORMATION
VIDEOGAME RECEIVES AND INCORPORATES ENHANCEMENT DATA INTO VIDEOGAME

FIG. 6

METHOD AND APPARATUS FOR DYNAMIC ENHANCEMENT OF VIDEO GAMES WITH VENDOR SPECIFIC DATA

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates generally to the field of video game data and displays and more specifically to aftermarket enhancement of such data and displays using vendor supplied keycodes and data for inserting product marketing related information into the game.

[0003] 2. Description of the Related Art

[0004] Video games have become an entrenched mode of entertainment for a wide variety of users from young children to retired persons. The complexity and variety of videogames is increasing rapidly and the interaction of such games with general life experience of the players is becoming important as a marketing tool. Many videogames portray realistic scenery and game settings. Product marketing has been inserted into videogames as a portion of the scenery or setting much as use of products and product advertising materials in movies and television.

[0005] The use of the Internet for downloading of videogames as well as for interactive gaming between multiple players has provided means for rapid dissemination of new games and ongoing derivatives or sequels to existing games. Many video games allow the user to customize the appearance of the game, the characters which participate in the game or their abilities, the virtual locations in which the game play occurs and so on. Other more advanced modifications ("MODs";), such as for Valve Corporation's Half-Life game series can be achieved through offline use of a software development kit (SDK) which is made publicly available typically by the game developer for use by advanced users. Organizations of game players have been formed for sharing (or purchasing) tips, instruction and supplemental software downloads. Existing videogame enhancement opportunities require considerable manual input from the user such as entering a long string of alphanumeric characters using a keyboard or worse, a game joystick. Recent advancements in integration into videogames of digital cameras and video pattern recognition software such as the Sony Eyetoy and Eyetoy-enabled games have become widely available and widely used, providing an installed, proven base upon which to build a simplified method of data input (namely, pattern recognition of an image.)

[0006] Additionally, the insertion of product marketing information has largely been limited to: Static insertion of mostly static information at time of game development (for example, stadium billboard ads in sports games and equipment decals and brands in racing games); more game-relevant objects and information inserted at time of development (for example, Jeep used in Tony Hawk's Pro Skater 2); and dynamic insertion of static information (for example as will be offered by Massive, Inc beginning October 2004.) A means of inserting more interesting product marketing-related information is lacking, as is a method of associating purchase of consumer goods with providing a benefit to the videogame user.

[0007] It is therefore desirable to provide an integrated system for supplying videogame players with means of and motivation for enhancing videogame play through the use of keycodes or tokens that are provided through the purchase of a separate consumer product and which require minimal effort on the part of the user to initiate the acquisition of such enhancements

[0008] It is also desirable that the integrated system create multi-tiered cross marketing opportunities between videogame producers, videogame machine manufacturers and consumer product suppliers in providing the game enhancements to users.

SUMMARY OF THE INVENTION

[0009] The present invention incorporates a machine for operating a videogame, commonly known as a "game player" including a computer processing system, a game controller and a display. A data capture device is interfaced to the operating game player and the capture device or processing system includes modules for capturing data from a delivery vehicle associated with a vendor supplied consumer product. The videogame or processing system incorporates modules for integrating new capability into the video game responsive to the captured data either directly or through an Internet connection to a server supplying enhancement data to the processing system and videogame software. The enhancement data is or can be keyed to the data delivered with the vendor supplied consumer product and can be branded with the product's or a cross-promoted product's identity.

[0010] Return data reflecting usage of the captured data and demographics associated with the user and the product providing the delivery vehicle are transmitted to an external collection program.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] These and other features and advantages of the present invention will be better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

[0012] **FIG. 1** is a system diagram of the elements of a first embodiment of a system employing the present invention;

[0013] **FIG. 2** is a block diagram flow chart of the operation of a system employing the present invention as embodied in **FIG. 1**;

[0014] **FIG. 3***a* is a system diagram of the elements incorporated in a remote server for a system employing the present invention;

[0015] **FIG. 3***b* is a block diagram flow chart of related functions incorporated in the operation of the present invention for employing provided data and obtained statistical data;

[0016] **FIG. 4** is a system diagram of the elements of a second embodiment of a system employing the present invention;

[0017] **FIG. 5** is a block diagram flow chart of the operation of a system employing the present invention as embodied in **FIG. 4**; and,

[0018] **FIG. 6** is a block diagram flow chart of functions employed in the operation of the present invention with enhanced interaction for supplemental enablement of the videogame.

DETAILED DESCRIPTION OF THE INVENTION

[0019] Referring to the drawings, **FIG. 1** shows a first embodiment of the present invention. A videogame machine **10**, such as a personal computer or dedicated game machine like the XBox®, Playstation®, GameCube® or GameBoy®, is employed to operate videogame software with a user operated controller **12**. A display **14** presents the visual and, with associated speakers, the audio aspects of the game to the user. A data capture device **16** is interfaced to the videogame machine.

[0020] A product supplied by an outside vendor provides a delivery vehicle **18** for a keycode or other data, as will be described in greater detail subsequently, which is presented by the user to the data capture device. The data captured from the delivery vehicle is employed by the videogame machine to enhance the videogame software to provide additional or modified characters, capabilities or presentation within the video game. For example, modification of a character in the video game for presentation as a character associated with the product carrying the delivery vehicle or providing a "special bullet", "special sound" or visual presentation such as background texture in the game can be accomplished using extension data obtained by the videogame through use of the captured data. Additional elements such as display of the product or promotional materials regarding the product in the videogame display during operation are derived from the captured data in suitably configured videogame software.

[0021] For the embodiment shown in **FIG. 1**, the delivery vehicle supplies a pattern or barcode which is readable by the data capture device. The universal product code (UPC) or Data Matrix (ECC200) are exemplary existing formats operable with the present invention. The pattern or barcode is imprinted on the product itself, the product packaging or a token such as a "prize" card contained within the product packaging and provides a keycode, such as a hexadecimal code, with sufficient digits for unique assignment to multiple different products or different temporal and/or special versions of a given product. Such special versions include geographic territory specific distributions of the product. In certain embodiments, the code is sufficient to identify each product instance, i.e. each copy/version of the product sold.

[0022] Referring to **FIG. 2**, the software for the videogame being operated by the videogame machine or hardware within the machine itself is configured with a data capture device interface **20** having a module to sense presentation of the delivery vehicle or allow the user to specify such presence to the capture device and a module for downloading the keycode into a data buffer **22**. A configuration employing a digital camera device such as the Eye Toy® in combination with pattern recognition software such as that available from Matrox, Inc. or Montivision Inc. to process the image data from the camera to recognized imprinted machine readable code within the field of view of the camera and decode the imprinted code is applicable for embodiments of the present invention.

[0023] The keycode is interpreted by a pattern recognition module **24**, in the initially defined embodiment. The recognition module in the alternative embodiments only requires keycode identification with interpretation conducted by the server. The videogame machine is in communication with a server **26** over a communication link interface **28** to a communications link **30** such as the internet or other cable or satellite service. The server incorporates a module for receiving the keycode presented by the videogame machine. The server interprets the keycode and provides videogame enhancement data corresponding to the keycode to the videogame machine. The availability of unique keycodes for each product instance allows the server to limit the access using that keycode to the specific game player originally submitting the keycode.

[0024] The enhancement data is provided or specified by the product vendor or an associated agent **32**. The server is configured with a communications module for secure access and update of the enhancement data by the vendor and a module for distribution of the enhancement data to the videogame machine in response to the receipt of the keycode, as will be described in greater detail subsequently.

[0025] The enhancement data is received through the communications link interface by a control module **34** which interprets the enhancement data for use by the videogame and stores the interpreted data in a memory **36**. Creation of the enhancement data is accomplished using industry standard tools and converted as necessary to an interim open standard format that is readable by any entity for compatibility with existing videogame capability. An exemplary videogame for use with the invention employs a hard memory or removable storage **38** for game functions and includes a module for dynamic expansion of the game capability based on the interpreted data. As previously described, such expansion of capability may be the addition or substitution of characters (adversarial and/or cooperative), enhancement of a game function such as additional "fuel" or "life" for a character, enhanced speed or weapons, vehicles; targets; levels; worlds or cheats. Such enhancements can be branded with the vendor's product or cross-promoted product information. Visual presentations including the product or promotional information such as logos, trademarks, audio associated with the product or cross-promoted product in a passive or active/dynamic part of the videogame "world" in the scenery of the game or modification of the "look and feel" of the game are also accomplished based on the interpreted data. The enhancement data non-trivially extends the game while having the potential for incorporating product or cross-promotional product information into the extensions. Additionally, the enhancement data optionally inserts direct or indirect opportunities for "click through" to purchase products or obtain rewards. In alternative embodiments with greater complexity, the user selects from a menu of enhancements available based on the interpreted data to modify the videogame.

[0026] In certain embodiments, to allow the use of inexpensive digital cameras, which typically have a fixed focal length, as the data capture device in conjunction with a desire to keep code imprinting size to a minimum, a small imprinted code may not be readable by the pattern recognition module when the imprinted code is held in front of the camera such that the image of the imprinted code is in focus. Therefore to determine which product and which version of the product is being offered by the user for use as the delivery vehicle in this system, an image of the product or product container in whole or in part is captured and then

processed as an image to recognize the actual product, or its container or other image-carrying vehicle delivered with the product.

[0027] Such processing takes place on a remote processor associated with the server by sending the captured image to that remote processor. This avoids complexity in the videogame machine and videogame software which need have no prior knowledge of which products are capable of being used in the system described. The remote processor has access to the data required to recognize every individual product and version of product in use in the system. In alternative embodiments where greater complexity in the game player system is allowable, elements of basic feature extraction or image compression are accomplished in the game player prior to communication to the server.

[0028] Such a product or container or other image-carrying vehicle is then marked with an easily changed shape, color or other type code which contains less data than the DataMatrix code example described above, because the code need only differentiate variations within that particular product, and does not need to be able to differentiate among all possible products and product types able to function within the system. Such a code can also be unique for each product and variation and need not adhere to any standard other than that it (solely or in conjunction with the rest of the product, container or other image-carrying vehicle) be recognizable by the pattern recognition module. Therefore such a code can be more readily integrated into packaging design of a product, for example by changing the shape of a special mark on the front of the product packaging that can be interesting and relevant to the product promotion instead of just a barcode or data matrix code. The mark is typically an addition to or alteration of the existing product packaging "look" which is also recognizable by the consumer to differentiate the available enhancements from various product units.

[0029] For the embodiment shown, to supply the enhancement data and quantify the amounts of usage of the videogame enhancement data, a data quantification module **40** runs on the server, as shown in **FIG. 3***a*. As shown in **FIG. 3***b* for an exemplary embodiment, an encoded request based on the keycode is received from the videogame machine **42**. The access request is decoded and the user identification and keycode is extracted **44**. The access request is authenticated **46** and the keycode is used to look up an associated keycode data record in the database **48**. The record is evaluated to determine if a user ID field is present in the record **50** and, if not, stores the incoming user ID in the keycode data record **52**. The temporal information associated with the request is stored and an access count filed is incremented **54**. The access count is evaluated to determine if the user has already had access to the enhancement data a predetermined number of counts **56**. If not, the system determines if an expiration date for the keycode has passed **58**. If not, the enhancement data is delivered to the videogame machine from which the request originated **60**. If either the access count or the expiration date has been exceeded, the system delivers a "sorry" message with appropriate explanation and customer service contact information **62**.

[0030] If an entry in the ID field for the user was identified in step **50**, a determination is made if the user ID matches the stored user ID **64**. If so, the storage step **54** is entered as previously defined. If the user ID does not match, a fraud attempt handling protocol is initiated **66**. If the fraud handling protocol includes storage of a new user ID and normal data delivery **68**, the tabulation step **54** is entered.

[0031] The tabulation steps described with respect to **FIG. 3***b* measure and record in an access data pack **70** (**FIG. 3***a*) the various access information for each set of videogame enhancement data **72** that is accessed, as described, from all of the videogame machines that are used over a given period. Such access information includes, but is not limited to, product identification, variation within product, date, time, internet protocol (IP) address and/or geographic location of videogame machine making data request, videogame machine identification number, authentication that the request for videogame access data came from an authorized user, videogame name, videogame developer name. The access information is also gathered for specific user identification and, in various embodiments, is obtained upon first use of the system or a predetermined alternative time such as when a "reward" is offered. Such access information is enhanced by the data quantification module using standard statistical data gathering and reporting methods, for example, accumulated over time; broken out by day, week, month, etc, and can be combined with the videogame enhancement database, but does not need to be so combined.

[0032] An access module **74** running on the server allows secure access to the access data pack by the product vendor or associated agent or agents who desire such data. Further statistical analysis is possible offline once the data is gathered.

[0033] Additionally, a compression module **76** for compressing the videogame enhancement data resides on the server and operates on uncompressed videogame enhancement data stored on the server or is used by the product vendor or vendor's agent or agents to compress the videogame enhancement data before uploading such data to the server. A corresponding decompression module **78** in the videogame machine provides decompression of the enhancement data for entry in to the memory.

[0034] Also for the embodiment shown, the videogame machine incorporates a module for collection of usage data **80** reflecting the usage of the enhancement data within the videogame which is transmitted by the control module through the communications link to the server as additional statistical data for addition to the access data pack.

[0035] A second embodiment of the invention is shown in **FIG. 4** wherein the delivery vehicle **18** contains an embedded memory **82**. A data reading device **84** is connected to the videogame machine, substituted for the capture device of the first embodiment, to read data contained in the embedded memory of the delivery vehicle. The data reading device is a separate unit interfaced to the videogame machine in certain embodiments, while in alternative embodiments, the data reading device is incorporated directly into the videogame machine.

[0036] A Radio Frequency Identification (RFID) tag is exemplary of data storage device suitable for the embodiment herein and would be incorporated into the delivery vehicle as the keycode/data storage device with a RFID reader employed as the data reading device. As with con-

ventional RFID usage, placement of the RFID in proximity to the reader allows automatic sensing of the RFID as presentation of the product delivery vehicle with download of the data carried by the RFID as the enhancement data.

[0037] As shown in **FIG. 5**, the data received from the reading device is transferred through a data reading device interface **85** through a buffer **86** to a memory **36** by videogame control module **34**. In certain embodiments, a timing control module for integrating the uploading of videogame enhancement data from the delivery vehicle under the control of the videogame control module is employed. The timing control module drives a "polling" method for checking the data capture device for presence of readable medium in the image capture mode. As described for prior embodiments, once present in the memory of the videogame machine, the enhancement data is employed by the videogame control module for providing additional, modified or extended operation of the video game.

[0038] For the embodiment of **FIGS. 4 and 5**, communication between the videogame control module and the server **26** over the communication link **30** provides usage incidence information to the server regarding the entry and use of the enhancement data for contribution to the access data pack as previously described.

[0039] The purchase of product to obtain the keycode delivery vehicle, the ability to place product specific advertising or recognition element into the game scenario directly increases the consumer purchase and awareness of the product associated with the enhancement. The present invention further provides capability for cross marketing and associated revenue streams at three separate but related levels; the product manufacturer or distributor, the videogame producer and the videogame machine manufacturer. The ability of the videogame to be enhanced by the purchase of products otherwise desired by the consumer encourages the purchase of both the "enhanceable" videogame and the product to obtain the enhancement keycode/data. The integration of the data capture device or interface modules for such a device into the videogame machine for operation of the "enhanceable" videogame increases the appeal of the videogame machine to the consumer and also provides a potential secondary revenue stream for the videogame machine manufacturer through incorporation of the communications link interface module to allow transfer of usage data to the product manufacturer through the server supported access data pack as marketing/demographics data.

[0040] The videogame producer can market to various consumer product companies for hooks in the videogame software for enhancement code obtained through the delivery vehicle or server in response to a keycode from the delivery vehicle. In alternative embodiments of the invention, the enhancement data is provided as locked data in the original videogame hard memory or removable storage medium which is accessible only after entry of the keycode from the delivery vehicle through the data capture device similar to code enhancements currently available in game software through the use of "cheat codes". Since the videogame producer will likely supply the code for the enhancement data, the opportunity for revised sets of enhancement data to promote additional sales of the consumer product provides a marketing opportunity for the videogame producer with trickle down to the consumer product company for additional product sales to allow the consumer to obtain the latest enhancement data update. Similarly, the consumer product companies may offer the use of trademarks or other images within the game software in exchange for the hooks provided by the videogame producer for game enhancements responsive to the delivery vehicle obtained through purchase of the product.

[0041] Operation of an embodiment of the invention is described with respect to **FIG. 6**. The consumer employs the videogame machine that can run videogame soft programs as well as access the Internet, along with a peripheral digital camera that is able to be connected to the videogame console. The consumer then uses the videogame console to run a videogame enabled with the invention's technology **100**. The consumer can use the software in the "as purchased state"**99**. To alter or extend the videogame by adding new, more or differing game elements such as new characters, levels, capabilities, music, etc., **101** the consumer purchases a consumer product **102** which has packaging or other related delivery vehicle that has been marked **104** with a special machine-readable pattern (hereafter referred to as the "code marking") and delivered to a distribution outlet **103** for purchase by consumers. The consumer transports the product to the location of the enabled videogame machine **105**. Note that in certain alternative embodiments, the purchase of the product could occur on line and the transmission of a delivery vehicle could be direct to the consumers internet access port.

[0042] The consumer places the code marking in front of the camera **106**. A control module working with the videogame soft program continually monitors the data coming from the camera **108**. When the control module detects the presence of the code marking, the control module decodes the code marking using a pattern recognition module **110**. A keycode is the result of the decoding **112**. A remote database is then accessed using this keycode **114** to fetch enhancement data **116** which is then used to alter or extend the videogame **118** as described above. The enhancement data has been created by the consumer product vendor (or by the video game producer, an advertising agent or other agent on the vendor's behalf) and uploaded to the server **120** in a desired format including, as an example, compression of the data. The database is stored at a remote site which is accessed via the Internet using the videogame console's Internet access module. The product vendor communicates with the server to obtain statistics regarding the access and usage of enhancement data **122**

[0043] The enhancement data fetched can contain any data and may be altered for dated or otherwise specially identified versions of the consumer product. For example one set of enhancement data might be supplied based on the purchase of a single bottle or can of a soft drink while a second set of enhancement data is provided based on the purchase of a 12-pack. In the exemplary embodiment, the videogame software contains hooks for the use of such data to extend or alter itself, such as by adding a new character which the user can use or by replacing some parts of the game with which the user interacts with new elements described by the data. Such new game characters or game elements or other alterations or additions to the videogame contain or display consumer product promotional information such as logos or

other trademarks, audio, or representations of the products themselves enabled to act as a passive or active/dynamic part of the videogame world.

[0044] For example, if the videogame is a "target practice and enemy avoidance" game such as the classic videogame "Space Invaders", the user can play the game normally, as purchased, wherein the user is represented with a certain appearance specific to the game as shipped, and the targets and enemy combatants are each represented as their certain appearance also specific to the game as shipped. The capabilities (such as moving back and forth, surrounding oneself with a protection field etc.), weapons (guns, bullets, etc.), and so forth of the user, targets and enemies are also as shipped with the videogame. The user then follows the steps described above to enhance the videogame.

[0045] For example the user buys a can of soft drink beverage which is imprinted with a pattern-containing keycode, and places it in front of the camera. After the videogame process the keycode data and transacts with the server, the videogame receives from the server the videogame enhancement data related to this particular version of this particular brand and occurrence of soft drink beverage. Such enhancement data can be in the form of the data representing a "3D" (three-dimensional, intended to mean that which is used by "3D" videogames) entity which resembles the can of soft drink beverage, complete with logo, look and any other branding information, in color. The data can be represented in a standardized way that all enabled videogames can understand and/or include custom information that only certain enabled (enabled, but differently abled) videogames can understand allowing segmented marketing to various videogame producers as described previously. The videogame in this example uses such data to replace some of the targets with this new look. For example, if the original targets were meant to look like asteroids in space, some or all of the asteroids are replaced by cans of soft drink beverage. Similarly, if the user's representation was meant to look like a spaceship, the spaceship is replaced with a two liter bottle of soft drink beverage or other stylized entity either relating to or showing product-related markings of this product or other product which the vendor of the primary product wishes to cross-promote.

[0046] The limits on the possibilities of game element usage are defined only by the game developers, product vendors, ad clients and other third parties developing the videogame enhancement data. In an exemplary embodiment, the enabled videogame is a "first person shooter" type game such as HalfLife® by Valve Corporation wherein a player or team of players can battle other single players or team of players. An exemplary participant in the program is Frito-Lay, Inc. and one of the videogame enhancement instances changes the bullets of a player's gun to one of Frito-Lay's products. An opponent player facing such an "enhanced" player and losing is heard to remark "I got killed by a Cheeto®!"

[0047] Additional marketing incentives are placed within the enhancement data for the game in certain embodiments whereby the game player can access reward data associated with the vendor supplied product from which the enhancement data was obtained. As an example, upon playing the enhanced video game where the enhancement incorporates the addition of a new opposing character and by defeating the character or fighting the character until it relinquishes a reward, a discount coupon is made available through the operating system, or provided by mail or e-mail to the user based on previously or presently entered identification, for purchase of additional product. As previously described, the relinquished reward from the system includes in alternative embodiments opening of click-through capability allowing the user to access a website providing the prize and/or allowing purchases by the user from the website. Alternatively, defeat of the character(s) or multiple use of the enhanced game resulting in multiple exposures to the newly embedded data related to the product builds points which are accumulated to result in production of the coupon upon reaching a predetermined point level. As an alternative to direct production of a coupon by the operating system of the game, the usage data transmitted to the server on a continuing basis is employed to remotely generate the coupon for delivery to the game player.

[0048] Having now described the invention in detail as required by the patent statutes, those skilled in the art will recognize modifications and substitutions to the specific embodiments disclosed herein. Such modifications are within the scope and intent of the present invention as defined in the following claims.

What is claimed is:

1. A video game enhancement system comprising:

means for operating a video game including a computer processing system, game controller and a display;

a data capture device interfaced to the operating means and having means for capturing data from a delivery vehicle associated with a vendor supplied product;

means for integrating new capability into the video game responsive to the captured data.

2. A system as described in claim 1 further comprising means for transmitting data reflecting usage of the captured data to an external collection means.

3. A system as described in claim 1 wherein the data capture device comprises a video camera.

4. A system as described in claim 3 wherein the delivery vehicle comprises packaging for the product having a machine readable pattern imprinted thereon.

5. A system as described in claim 4 wherein the means for capturing data comprises a decoding module responsive to the machine readable pattern.

6. A system as described in claim 5 wherein the machine readable pattern is decoded by the decoding module as a keycode.

7. A system as described in claim 1 wherein the means for integrating new capability comprises:

a remote server storing enhancement data for the video game;

a communications module incorporated in the operating means for communication with the remote server responsive to the data capturing means;

a processing module in the remote server responsive to a keycode from the communications module, the keycode captured from the delivery vehicle;

a delivery module in the remote server enabled by the processing module to transmit enhancement data corresponding to the keycode to the communications module; and,

means for incorporating the enhancement data into the video game.

8. A system as described in claim 1 wherein the delivery vehicle incorporates a readable data storage medium and the capture means comprises means for reading enhancement data stored on the readable storage medium, and the means for integrating new capability comprises a module in the operating means responsive to the reading means for incorporating the enhancement data into the video game.

9. A system as described in claim 8 wherein the readable data storage medium comprises a Radio Frequency Identification (RFID) tag and the capture means comprises a RFID reader.

10. A system as described in claim 8 further comprising means for transmitting data reflecting usage of the enhancement data to an external collection means.

11. A system as described in claim 2 wherein the transmitting means comprises a reporting module in the operating means for transmitting identifying characteristics of the operating means and enhancement data derived from the captured data and wherein the external collection means comprises a remote server and a communications module incorporated in the operating means for communication with the remote server responsive to the reporting module.

12. A system as described in claim 11 further comprising an access data pack incorporated in the remote server for access by the vendor of the supplied product, the access data pack receiving the identifying characteristics transmitted by the reporting module.

13. A system as defined in claim 5 wherein the machine readable pattern comprises a barcode.

14. A system as defined in claim 5 wherein the machine readable pattern comprises a data matrix.

15. A system as defined in claim 1 wherein the means for integrating new capability comprises:

locked enhancement data pre-stored within the video game;

a processing module in the operating means responsive to a keycode from the communications module, the keycode captured from the delivery vehicle; and,

means for enabling operating means to access locked enhancement data corresponding to the keycode.

16. A method for enhancement of a video game comprising the steps of:

providing a vendor supplied product including a delivery vehicle carrying data for capture;

interfacing a data capture device to an operating system for the video game;

exposing the delivery vehicle to the data capture device; and,

enhancing the video game responsive to the captured data.

17. A method as defined in claim 16 further comprising the step of providing information reflecting usage of the captured data to an external collection server.

18. A method as defined in claim 16 wherein the step of providing a vendor supplied product including a delivery vehicle carrying data for capture includes printing a machine readable code on the delivery vehicle.

19. A method as defined in claim 16 wherein the step of enhancing the video game responsive to the captured data includes the steps of:

decoding the captured data as a keycode;

accessing enhancement data responsive to the keycode; and,

incorporating the enhancement data into the videogame.

20. A method as defined in claim 19 wherein the step of accessing enhancement data comprises the steps of:

transmitting the keycode to a remote server; and,

supplying enhancement data from the remote server to the operating system responsive to the keycode.

21. A method as defined in claim 19 wherein the step of accessing enhancement data comprises the step of:

unlocking locked predetermined enhancement data in the videogame responsive to the keycode.

22. A method as defined in claim 19 wherein the enhancement data comprises a predetermined selection from character appearance data and performance enhancement data.

23. A method as defined in claim 19 wherein the step of incorporating the enhancement data further comprises the step of selecting desired enhancements from a menu of predetermined enhancement data presented responsive to the keycode.

24. A method as defined in claim 17 further comprising the steps of:

accumulating usage data in a data access pack; and

providing the data access pack to the vendor of the supplied product.

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