In one embodiment, a modular storage unit includes a display compartment, wherein the display compartment is adapted to house a display device. The modular storage unit also includes a base portion, wherein the display compartment is disposed above the base portion. In addition, the modular storage unit is configurable with one or more other modular storage units to form a plurality of substantially symmetrical multi-faceted arrangements that can fit adjacent to a substantially perpendicular corner, along a substantially flat wall, and in the middle of a room away from a corner or flat wall.
FIG. 2

Dimensions shown in inches (""):
- Top section: 18 1/2"
- Middle section: 23"
- Bottom section: 25"
- Width: 32"
- Height: 72"
MULTI-FACETED ELECTRONIC VIDEO DISPLAY STRUCTURE FOR ORGANIZING AND DISPLAYING ELECTRONIC DEVICE COMPONENTS

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. patent application Ser. No. 11/199,650, filed Aug. 9, 2005, which claims the benefit of U.S. Provisional Application No. 60/600,030, filed Aug. 9, 2004. Each of the aforesaid applications is hereby incorporated by reference in their entirety.

REFERENCE REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable

SEQUENTIAL LISTING

[0003] Not applicable

BACKGROUND OF THE INVENTION

[0004] 1. Field of the Invention

[0005] This invention relates to apparatuses, devices, systems, programs, kits, and/or methods for organizing and/or retaining a variety of electronic and non-electronic devices including, for example, video gaming units used in a video game parlor or arcade and personal computers/desktop terminals used in schools, libraries, and businesses.

[0006] 2. Description of the Background of the Invention

[0007] Numerous entertainment centers are available in the market place having a variety of storage features for household or electronic products such as televisions (TVs), radio receivers, compact disc players, etc. However, the entertainment centers now available are for use by individuals in a household setting and have a limited storage and display capability. They are not suited for contemporaneous use by multiple individuals and are unable to store and display the electronic devices and/or efficiently organize work stations needed for a multi-user setting, for example, a video game parlor, learning center, telemarketing or other shared-office settings.

[0008] For example, U.S. Pat. No. 3,467,455 issued to Caldeyker discloses an entertainment center having a TV stand which rotates on its axis and includes mounts which provides similar rotation for speakers disposed on left and right sides of the TV housing and stand. The center contains two lower sliding drawers and four hinged cabinets for storing various items. U.S. Pat. No. 4,471,586 issued to Schuch et al. discloses an independent shop in the form of a newspaper kiosk comprising a cell of trapezoidal shape and having a supporting structure formed by at least four supporting posts located at the four corners of the trapezium. The structure includes a network of interconnected crossmembers as a roof framework. The posts act as supports for mounting product display box structures.

[0009] U.S. Pat. No. 4,702,534 issued to Witt et al. discloses a winged display case having a center enclosure, suited for containing trophies or other memorabilia, equipped with hinge, mounted opposite glass faced picture mounting wings. The center enclosure is made of a number of different shaped structures.

[0010] U.S. Design Patents issued to Freeman (Des. 244, 820), Short (Des. 340,152), Williams (Des. 346,695), Todd et al. (Des. 354,638), Hattrick-Smith (Des. 367,383) disclose ornamental design features of entertainment centers of general relevance to the TV center organizer as herein described. The French Patent No. 2,444,422 issued to Pellini discloses common features generally related to entertainment centers, including hinged outer shelves which rotate outward on left and right sides of a central shelf area for storing additional items.

SUMMARY OF THE INVENTION

[0011] In one embodiment, a modular storage unit includes a display compartment, wherein the display compartment is adapted to house a display device. The modular storage unit also includes a base portion, wherein the display compartment is disposed above the base portion. In addition, the modular storage unit is configurable with one or more other modular storage units to form a plurality of substantially symmetrical multi-faceted arrangements that can fit adjacent to a substantially perpendicular corner, along a substantially flat wall, and in the middle of a room away from a corner or flat wall.

[0012] In another embodiment, a storage unit includes a display housing adapted to receive a display device, wherein the display device is recessed from the front of the display housing, and a component housing adapted to receive at least one of an electronic device and a different component. The storage unit also includes a horizontal panel, wherein the horizontal panel is disposed adjacent the display housing and the base member and extends beyond the front of the display housing, and a base member that supports the display housing and the component housing, wherein the display housing is disposed above the base member and the component housing is disposed above the display housing, and further wherein the base member includes a recessed front panel.

[0013] In yet another embodiment, method of housing electronic and non-electronic components includes the steps of providing a display compartment, a storage compartment, and a base portion and arranging the display compartment above the base portion and arranging the storage compartment above the display compartment to form a modular storage unit. The method further includes the step of configuring one or more modular storage units to form a plurality of substantially symmetrical multi-faceted arrangements that can fit adjacent to a substantially perpendicular corner, along a substantially flat wall, and in the middle of a room away from a corner or flat wall.

[0014] These and other objects of the present invention will become readily apparent upon further review of the following specification and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] FIG. 1 is a front isometric view of a single component organizer according to one embodiment showing a door in an open position;

[0016] FIG. 2 is a front isometric view of the single component organizer of FIG. 1 showing a door in a closed position;
FIG. 3 is a front isometric view of a component organizer according to an embodiment of this invention;

FIG. 4 is a top plan view of the component organizer of FIG. 3;

FIG. 5 is a front isometric view of a storage unit according to yet another embodiment;

FIG. 6 is a front isometric view of the storage unit of FIG. 5 showing a panel in a closed position;

FIG. 7 is a front plan view of a modular storage unit according to yet a further embodiment;

FIG. 8A is a top cross-sectional view along the lines 8A-8A of FIG. 7;

FIG. 8B is a top cross-sectional view along the lines 8B-8B of FIG. 7;

FIG. 8C is a top cross-sectional view along the lines 8C-8C of FIG. 7;

FIG. 8D is a top elevational view of the modular storage unit of FIG. 7;

FIG. 9 is a schematic diagram of a plurality of modular storage units configured in various arrangements in a room according to a further embodiment.

DETAILED DESCRIPTION

The present invention is directed to a system for organizing and retaining a variety of electronic devices such as one or more video game systems or monitors and corresponding storage media. Embodiments of the present invention are depicted in FIGS. 1-4 and discussed below.

In one embodiment of the present invention, an organizer for electronic devices and corresponding storage media is provided. Illustratively, the electronic device organizer includes a group of component organizers arranged in a shape used for organizing and retaining one or more electronic devices including, for example, one or more control units and electronic circuitry appropriate for the encoding, sending, receiving, processing, decoding, and/or displaying of data as used in various games, such as, for example, PlayStation® 2, Xbox®, Halo®, and/or Nintendo Game Cube®, in which one or more players can participate. Other game systems useful in the present invention include any game adaptable to a video medium, including, for example, card games, such as, for example, blackjack or poker, chess, checkers, roulette, monopoly, trivial pursuit, etc. Through electronic encoding, transmitting, receiving, processing, decoding, and/or displaying, the games can be substantially instantly displayed in one or more places including, for example, on a video display unit, which may include, for example, a display board, a television screen, and/or a video monitor. The component organizer in one embodiment can also contain a console for manually operated controls including, for example, a keyboard, a joystick, a pointer, and/or a computer mouse, that affect the game data used in interacting and playing the game.

In one embodiment of the present invention, a component organizer includes a central shell structure optionally having one or one more top portions; one or more central storage compartments for one or more video display units (for example, a display board, a television screen, and/or a video monitor); and/or one or more interior storage compartments; and/or one or more base portions. Illustratively, the one or more top portions can include a cover attached at opposing ends of the central shell structure. The one or more interior storage compartments may each independently have one or more locking storage covers hingedly attached to the central shell structure. In yet another embodiment, one or more base portions can have the same, smaller, or larger surface area than the surface area of the one or more top portions. Illustratively, each component organizer is substantially a shape comprising a V-shape, a square-shape, a polygonal-shape, for example, a pentagon-shape, a hexagon-shape, a heptagon-shape, or an octagon-shaped, an oval-shape, a round-shape, or an ellipsoid-shape. One or more sides of the shape may be substantially equal in length. The resulting structure in one embodiment provides the storage and display capacity needed for the larger setting of a video game parlor or arcade. A multi-video display system of the present invention comprising one or more component organizers may be arranged in a variety of shapes and sizes including, for example, a polygon of various shapes and sizes, including, for example, a shape of 3 to 256 sides, or more, depending on the application desired, and may be spirally or circularly oriented. Illustratively, shapes can include a triangle, a square, a pentagon, a hexagon, a heptagon, and/or an octagon. The sides of an individual component may or may not be equal in length depending on the particular shape or size desired.

In accordance with various features of the present invention, an electronic displaying device, together with one or more data input units and appropriate electronic circuitry for encoding, sending, receiving, processing, decoding, and/or displaying of data as used in various games, such as, for example, PlayStation® 2, Xbox®, Halo®, and/or Nintendo Game Cube®, or the like, is provided. In this embodiment, the particular game can be designed to automate and display the pertinent information of the game in such a manner as to allow more than one of the games to be played individually or simultaneously by one or more players in a substantially simultaneous manner. In yet another embodiment the data from one or more players can be stored in an appropriate storage media that can then be accessed immediately and/or at a later time by the original player or by another player. In still another embodiment, one or more players may access and play one or more games of the multi-video display system of the present invention remotely via, for example, the Internet.

One or more or portions of a transmitting device useful in the present invention can be contained in any suitable housing having appropriate accommodations for the necessary inputs and outputs, such as, for example, a computer keyboard, a joystick, a pointer, a mouse, and/or and external power. In one embodiment, data transmission output can be accomplished wirelessly, as by an antenna or optically, for example, or through a cable, for example, coaxial cable, and/or a wire, for example, electrical wiring, as well as other methods known to those skilled in the art. One or more switches corresponding to various games can also be associated with the transmitting portion.

Illustratively, a receiver device in the present invention receives and decodes the encoded data into signals that are then displayed to present a graphical and/or numeric display of the data on one or more video display units such
as, for example, a cathode ray tubes (CRT), a light emitting diode (LED), a liquid crystal displays (LCD), and/or a video or television display monitor. The video display unit in one embodiment of the present invention is positioned ergonomically for viewing by gamers. A video signal source is operably interconnected to the video display unit. The video signal source can also comprise a playback device. The video display unit can also be interconnected to the video source by a cable in one embodiment of the present invention. Illustratively, the video display unit can include one or more receivers and the video signal source can include one or more transmitters adapted to transmit a multimedia signal to the video display unit receiver. A wireless interconnection is thereby formed between the video source transmitter and the video display unit receiver.

[0033] In making the present invention ergonomically adaptable to an individual gamer, a video display unit can be adapted to move between a retracted and extended position via a bracket or slide mechanism. The video display unit can also be pivotally mounted to the bracket or slide mechanism for rotation between a range of ergonomic viewing angles. A detent mechanism can be formed between the bracket or slide mechanism and the video display unit for retaining the video display unit in a particular pre-selected rotational position relative to the bracket or slide mechanism. Adjustably mounting the video display unit about one or more pivot axes as well as in a vertically-adjustable manner allows the height, angle, and/or pivot of the video display unit to be easily adjusted by an individual gamer allowing for consideration of the location of the viewer as well as the age, height, and/or vision ability of the viewer in playing a game and/or interacting with the component organizer.

[0034] In yet another embodiment of the present invention, the video display unit is slidably mounted within a housing mounted to the component organizer for continuous adjustment between a stored position wherein the video display unit is located within the housing and a fully extended position wherein the video display is axially extended from the housing.

[0035] In yet another embodiment of the present invention, the video display unit is telescopically mounted within a housing mounted to the component organizer for continuous adjustment between a stored position wherein the video display unit is located within the housing and a fully extended position wherein the video display is axially extended from the housing.

[0036] It is also contemplated that the video display unit can include video driver software as is conventionally known in the art to maintain a vertically upright image on the video display unit screen regardless of whether the video display unit is positioned in an upright or inverted position. These types of video drivers typically operate by including a sensor located within the video display unit that senses the orientation of the video display and adjusts the signal to the screen of the video display unit corresponding thereto.

[0037] A component organizer of the present invention may also include in one embodiment of the present invention one or more jacks operably interconnected to the video display unit for receiving a signal from an alternate video and/or audio source. The alternate video source can be, for example, a video cassette player, a gaming unit, and/or a television signal. Additionally, audio or stereo jacks can be provided on a component organizer for interconnecting with a video source.

[0038] A multi-video display system of the present invention may also include electrical interconnections located, for example, at the base portion of the multi-video display system for optionally interconnecting electrical, networking, data, video signal, or cellular telephone signals to appropriately-wired circuits located within the multi-video display system.

[0039] The video display unit can in one embodiment be interconnected to one or more video signal sources by a cable or wire, or in a wireless unit, by a wireless receiver in the video display unit and an associated transmitter located within the multi-video display system, for example.

[0040] As illustrated in FIGS. 1-4, an entertainment center organizer component or housing 18 of the present invention can comprise a central shell structure 10 having a top portion 10a with a cover 11 attached at opposing ends of said shell structure, a housing 10b for a video display panel 34, an interior storage compartment 12 with a locking storage cover 14 hingedly attached by a hinge 30 to the central shell structure, and a base portion 10c. Each organizer component is attached forming an octagonal shaped entertainment center 18.

[0041] The locking storage cover 14 has a key lock 32 conceals the interior storage compartment 12 in a first or closed state as diagrammatically illustrated in FIG. 2 and provides access to the interior storage compartment 12 in a second or open state as shown in FIG. 1. A shelf 19 may also be located on the interior storage compartment 12 to hold various components (not shown).

[0042] The base portion 10c of the central shell structure 10 has a smaller surface area A5 than the surface area A6 of the top portion. The central shell structure 10 is constructed to form a substantially V-shaped housing or cavity for retaining a TV or video display panels 34 of various sizes. A rubber seal 40 may surround and secure the video display panel 34 to the housing 10b. Since dimension characteristics do not necessarily serve to distinguish the inventive features as herein described, one having ordinary skill in the art can provide the entertainment center organizer in any desired dimension as a matter of intended use.

[0043] As illustrated FIG. 1, shelf 19 is a tapered shelf decreasing in area from the front of the shell to the back portion 36 of the shell. With respect to first 11 and second 14 arcuate storage covers, they may be made of any desired material. In addition, cover 14 is hingedly attached to the interior storage compartment 12 at location 27. The entertainment center organizer component or housing 18 according to the invention is made out of one or more opaque materials including, for example, wood, a polymer, corrugated cardboard, metal, acrylic, polyethylene, polyurethane, nylon, fiber glass, polypropylene, or plastic, or any combination thereof according to a predetermined aesthetic preference or appeal. One or more translucent areas 38 may be provided in the central shell structure 10 to provide an opening to view the interior of the central shell structure.

[0044] In one embodiment of the present invention, the entertainment center is octagon shaped, that is, an eight-sided entertainment unit, that includes eight video display...
panels, such as a television monitor, with full game systems and one or more controllers for each video display panel. In this embodiment, one to as many as 16 players or more, can play at one time, in for example, a tournament or in league play. Game play can include, for example, PlayStation® 2, Xbox®, Halo®, and/or Nintendo Game Cube®. In yet another embodiment, the games, including, for example, Halo®, can be operatively linked and played with other gamers.

Illustratively, one to several players per video display panel can play at one time depending on the particular game being played. For example, at each video-display system, about 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 1,000, 10,000, 100,000, 1,000,000, 10,000,000, 100,000,000 people, or any multiple (for example, multiples of 2, 3, 4, 5, 7, 8, 9, or 10) or addition thereof, per video display unit can be playing at each video-display system. In a video-display system with eight video display panels, for example, an octagon shaped video display system with a video display panel at each side of the octagon, or a sixteen-sided shape with video display panels located at eight of the sixteen sides, as few as eight players may be playing at one time when every video display panel is being played by a gamer and when there are two gamers per video display panel, sixteen gamers may be playing at each video-display system. It is contemplated that even higher numbers of gamers can play at each video display system depending on the size and shape of the video display system and the number of gamers per video display panel.

The present invention can also be used in conjunction with a wireless remote control system as described in, for example, U.S. Pat. No. 5,435,573, or touch sensitive video game controllers as described in, for example, U.S. Pat. No. 5,409,239.

In some embodiments of the present invention, an optional console is provided for the gamers to interact with one or more games, which includes, for example, interacting with a computer and controlling a computer display. Such console can also contain a computer keyboard, a joystick, a computer mouse, or other device to communicate with the game software or program.

Communication means to operably interconnect devices of the present invention can be by any means known to those skilled in the art and may include, for example, a hard wire means, a wireless means, and/or an optical means. Communication devices useful in the present invention include those described in U.S. Pat. No. 6,747,634. Other communication devices useful in the present invention include those described in U.S. Pat. No. 6,747,632. Other communication devices useful in the present invention include those described in U.S. Pat. No. 6,442,325. Other communication devices useful in the present invention include those described in U.S. Pat. No. 6,738,044. Other communication devices useful in the present invention include those described in U.S. Pat. No. 6,508,845. Other communication devices useful in the present invention include those described in U.S. Pat. No. 6,370,371. Other communication devises useful in the present invention include those described in U.S. Pat. No. 6,301,306. Other communication devises useful in the present invention include those described in U.S. Pat. No. 6,128,006. Other communication devises useful in the present invention include those described in U.S. Pat. No. 5,990,866.

Illustratively, a multi-video display system of the present invention comprises a plurality of video display panels to independently display an image. In one embodiment, each display panel comprises a display area for displaying an image, such as, for example, an image from a game such as PlayStation® 2, Xbox®, Halo®, or Nintendo Game Cube®. The multi-video display system may also include a housing to contain one or more of the display panels, and each display panel may be independently fixedly mounted on the housing. In one embodiment, the housing contains at least three display panels and is circularly oriented for organizing and/or retaining one or more electronic devices. In yet another embodiment, the housing of the present invention comprises a central shell structure with one or more top portions, one or more storage compartments for containing one or more of the video display panels, one or more interior storage compartments, and one or more base portions. The central shell structure may also have one or more covers hingedly attached to the central shell structure, with one or more of covers optionally attached to, for example, an opposing end of the central shell structure. In yet another embodiment, the cover is attached to the central shell structure at a first and second top central location. The covers can be made of, for example, one or more opaque materials. In yet another embodiment, the base portion of the multi-video display system is a smaller surface area than the surface area of the top portion.

The multi-video display system of the present invention may also contain a central shell structure comprising one or more interior storage compartments for the video display panels. The interior storage compartments can also optionally comprise a locking storage cover hingedly attached, for example, to the central shell structure at a first and second top central location. The locking storage cover can in one embodiment be made of one or more opaque materials. Illustratively, the storage compartment is substantially a shape such as, for example, a V-shaped compartment, a square-shaped compartment, a pentagon-shaped compartment, a hexagon-shaped compartment, a heptagon-shaped compartment, an octagon-shaped compartment, an oval-shaped compartment, a round-shaped compartment, a serpentine-shaped compartment, or an ellipsoid-shaped compartment. Illustratively, the housing is substantially a shape comprising a 3 to 250 sided shape, including, for example, a substantially triangle, square, pentagon, hexagon, heptagon, or octagon shape.

In yet another embodiment of the present invention, the sides of a multi-video display system are a shape where two or more sides are substantially equal in length.

In still another embodiment of the present invention, the multi-video display system has at least three sides that each house at least one video display unit.
Illustratively, the multi-video display system of the present invention is made of one or more opaque materials, such as, for example, wood, polymer, corrugated cardboard, metal, acrylic, polyethylene, polyurethane, nylon, fiber glass, polypropylene, and/or plastic, or any combination thereof.

The multi-video display system of the present invention may also comprise one or more communication device ports for the display panels to communicate with at least one external or internal device. Illustratively, the one or more communication device ports comprises, for example, a universal serial bus control port or a RS-232 control port.

The multi-video display system of the present invention may also comprise one or more video inputs comprising, for example, a composite video input, an RGB video input, and/or an S-video (Y/C) input.

The multi-video display system of the present invention may also comprise at least one power unit for providing power to, for example, at least one display panel and/or one or more electronic devices.

The multi-video display system of the present invention may also comprise at least one computer keyboard, a computer joystick, a pointer, and/or a computer mouse.

Illustratively, a video display panel of the present invention comprises a cathode ray tube, a television monitor, a light emitting diode display, a liquid crystal display panel, a plasma display panel, and/or a digital display panel, or any combination thereof.

In another embodiment of the present invention, the one or more of the electronic devices of the present invention are in communication with at least one video display panel of the present invention.

Illustratively, an electronic device of the present invention comprises one or more control units or electronic circuitry, wherein the one or more control units or electronic circuitry is capable of at least one of encoding data, sending data, receiving data, processing data, decoding data, and/or displaying data on at least one of the video display panels.

In one embodiment, control units and/or electronic circuitry is used in encoding, sending, receiving, processing, decoding, or displaying at least one game, such as, for example, PlayStation® 2, Xbox®, Halo®, or Nintendo Game Cube®. The multi-video display system of the present invention can be played by one or more people.

In yet another embodiment of the present invention, the image displayed in the present invention may be substantially identically displayed on at least two of the video display panels.

A method of independently displaying one or more video images is also provided by the present invention. Illustratively, the method comprises fixedly mounting a plurality of video display panels to independently display an image, each display panel comprising a display area for displaying the image, in a housing to contain the plurality of display panels, the housing comprising at least three display panels and circularly oriented for at least one of organizing or retaining one or more electronic devices.

The present invention also embodies kits that comprise in one embodiment, a multi-video display system that comprises a plurality of video display panels to independently display an image, each display panel comprising a display area for displaying the image; and a housing to contain the plurality of display panels, the housing comprising at least three display panels and circularly oriented for at least one of organizing or retaining one or more electronic devices; and a set of instructions for using, maintaining, and/or assembling the multi-video display system.

In one embodiment, a multi-console, multi-display, electronic video storage structure, such as a multi-faceted electronic video display structure, used for arranging, organizing and displaying various electronic devices is also provided by the present invention. Illustratively, each structure has an open vertical core structure, from which radiates a multiplicity of congruent arc-segment-shaped storage compartment-units, consisting of an interior concave surface and an exterior convex surface. Each arc-segment-shaped storage compartment-unit in one embodiment consists of multiple, vertically-oriented sub-compartment for arranging electronic components and related materials, including, for example, an upper series of one or more sub-compartment, one or more interior storage compartments, and/or a base-level, component storage/access sub-compartment. The mid-level video-display sub-compartment may optionally include an opening of the exterior convex surface to allow visual access to the electronic video display. The top portion in one embodiment may include a cover attached to opposing ends of arc-segment-shaped structure. In yet another embodiment, each of the several base-level, component storage/access sub-compartment optionally has a locking cover spanning its exterior convex surface that is hingedly attached to one end of the arc-segment-shaped structure. In still another embodiment of the present invention, the interior concave surface of each of the various vertically-oriented sub-compartment contains perforations of varying sizes and

In another embodiment of the present invention, the multi-video display system has one or more covers, housings, and/or locking storage covers made of one or more opaque materials. In yet another embodiment the game is played by at least one player. In yet another embodiment, the multi-video display system has at least three sides with each side housing at least one video display unit.

The invention has been described in an illustrative manner and it is to be understood the terminology used is intended to be in the nature of description rather than of limitation. All patents, published patent applications, and other references described herein are incorporated herein by reference as if they appear in this document in their entirety. Many modifications, equivalents, and variations of the present invention are possible in light of the above teachings, therefore, it is understood that within the scope of the below claims, the invention may be practiced other than specifically described.

In yet another embodiment of the present invention, the multi-video display system has one or more covers, housings, and/or locking storage covers made of one or more opaque materials. In yet another embodiment the game is played by at least one player. In yet another embodiment, the multi-video display system has at least three sides with each side housing at least one video display unit.

Referring now to FIGS. 5 and 6, a storage unit 50 includes a base member 52, a display housing 54, and a
component housing 56. The display housing 54 is adapted to house a display device (not shown) in a recess 58 defined therein. In one embodiment, the display housing 54 is adapted to recess a display device from a plane defined the front of the display housing 54 to increase user privacy and obstruct a view of side-by-side users from each others screens. Further, the component housing 56 is adapted to receive electronic devices and other components (not shown) in a recess 60 defined therein.

[0070] In the embodiment of FIGS. 5 and 6, the display housing 54 is disposed above the base member 52 and the component housing 56 is disposed above the display housing. Suitable openings are disposed between the display housing 54 and the component housing 56 to allow wires to easily extend between the compartments to connect electronic devices housed therein. For example, in the present embodiment, the component housing 56 includes one or more shelves 62 that are dimensioned so as to leave a space between the back of the shelf and a back panel 64. The shelves 62 also divide the component housing 54 into two generally equally sized compartments so that additional components can be stored in the compartment without being stacked directly on top of each other. In another embodiment, the upper shelves include suitable cut-outs or other openings (not shown). A panel 66 is attached to the storage unit 50 via one or more hinges 68. In one embodiment, the panel 66 is adapted to move about the hinges 68 to cover the component housing 56 in a closed position (FIG. 6) and expose the recess 60 of the component housing in an open position (FIG. 5). In addition, a suitable lock 70, such as a key lock or combination lock, is disposed on the panel 66 to secure the panel to the component housing 56 in the closed position. The panel 66 also includes a cut-out portion 72 that facilitates easy access to portions of the component housing 56. For example, the cut-out portion 72 may be used to facilitate remote control access to electronic components housed in the component housing 56 or is adapted to allow cables and wires to extend therethrough.

[0071] The base member 52 includes a recessed front panel 74, which provides structural support to the storage unit 50. The base member 52 also provides increased leg room under the display housing 54 for users that are standing or sitting in front of the unit 50. Further, the storage unit 50 includes a horizontal panel 76 that extends outwardly from the front of the storage unit 50. In the present embodiment, the horizontal panel 76 generally extends from a bottom of the display housing 54. In this arrangement, the horizontal panel 76 can serve as a desk for a user sitting or standing in front of the storage unit 50.

[0072] The storage unit 50 in one embodiment is adapted to house a display device (not shown) within the display housing 54 at about an eye level of a user standing in front of the storage unit. In this embodiment, the height of the base member is in the range of about 32 to about 43 inches (about 81-109 cm). In another embodiment, the height of the base member is about 35 to about 39 inches (about 88-99 cm). Alternatively or in conjunction, the height of a display device housed in the display housing 54 is adjusted with stands, supports, or other appropriate mechanisms so that a user standing in front of the storage unit can view the display device at about an eye level. In a different embodiment, the storage unit 50 is adapted to house a display device within the display housing 54 at about an eye level of a user sitting in front of the storage unit. In this embodiment, the height of the base member ranges from about 22 to about 32 inches (about 55-81 cm). In yet another embodiment, the height of the base member is about 25 to about 29 inches (about 63-73 cm). Alternatively or in conjunction, the height of a display device within in the display housing 54 is adjusted with stands, supports, or other appropriate mechanisms so that a user sitting in front of the storage unit can view the display device at about an eye level.

[0073] Turning now to FIG. 7, a modular storage unit 100 is shown similar to the storage unit 50 of FIGS. 5 and 6. However, the present embodiment is configurable with one or more other modular storage units to form a plurality of multi-faceted arrangements, such as shown in FIG. 9. In particular, the modular storage unit 100 includes a base portion 102, a display compartment 104, and a storage compartment 106. A door 108 is hingedly connected to the storage compartment 106 and a horizontal member 110 extends across an upper end of the base portion 102.

[0074] FIG. 8A shows a cross-sectional view of the base portion 102 including a front board 112 and two angled side walls 114. In the present embodiment, the side walls 114 are angled inwardly from a front plane 124 of the modular storage unit 100 at about a 60-75 degree angle. The side walls 114 form about a 67.5 degree angle with the front plane 124 of the modular storage unit 100. In one embodiment, this arrangement of the side walls 114 extends upwardly through the entire modular storage unit 100 to form a generally trapezoidal cross-section defined by the side walls 114, the front plane 124 and a back plane 126. The trapezoidal cross-section also defines the general shape of the other compartments and components of the modular storage unit. The front board 112 is recessed from the front plane 124 of the modular storage unit 100 to provide leg room to users standing or sitting in front of the unit. In one embodiment, the front board 112 is recessed from the front plane 124 of the modular storage unit 100 by about 1 to about 20 inches (about 2.54-50 cm). In another embodiment, the front board 112 is recessed by about 5 to about 14 inches (about 12.5-35 cm). The side walls 114 in FIG. 8A are shown extending beyond the front board 112 to define the front plane 124. However, in another embodiment, the side walls 114 do not extend past the front board 112 (not shown). In this embodiment, a front plane of the modular storage unit 100 is defined by a line 128 defined by a front portion of the display compartment 104 or a line 130 defined by a front portion of the storage compartment 106.

[0075] FIG. 8B shows a cross-sectional view of the display compartment 104. The display compartment 104 is configured to house a display device 116 (as seen in FIG. 7). In one embodiment, the display compartment 104 is deep enough to house the display device 116 so that a front plane 132 of the display device is recessed from the front plane 128 of the display compartment 104. In one embodiment, the display compartment 104 is between about 5 to about 30 inches (about 12-76 cm) deep. In another embodiment, the display compartment 104 is greater than about 20 inches (about 50 cm) deep. In addition, the horizontal member 110 extends past the front plane 128 of the display compartment 104 to serve as a work area or desk for users standing or sitting in front of the modular storage unit 100. In a further embodiment, the horizontal member 110 extends past the front plane of the display compartment 104 by greater than
about 1 inch (about 2.54 cm). In yet a further embodiment, the horizontal member 110 extends past the front plane by greater than about 5 inches (about 12 cm). A back panel 118 defines the back of the modular storage unit 100 and is generally planar with the back plane 126.

FIG. 8C shows a cross-sectional view of the storage compartment 106 including a shelf 120 similar to the one or more shelves 62 in FIGS. 5 and 6. In addition, the back panel 118 also extends behind a back of the storage compartment 106. In the present embodiment, the shelf 120 does not extend adjacent to the back panel 118, but is truncated a specified distance from the back panel to create an access opening 134 between the display compartment 104 and the storage compartment 106. The shelf 120 is terminated so that about one-half inches (about 1.27 cm) from the back panel. The shelf 120 is spaced about 4 inches (about 10 cm), for example, from the back panel 118.

FIG. 8D shows a top cap 122 covering a top 136 of the modular storage unit 100. In the present embodiment, the top cap 122 extends from the front plane 130 of the storage compartment 106 towards the back plane 126. In one embodiment a width of the top cap is about 8 to about 12 inches (about 20-30 cm).

In a different embodiment, the storage unit 50 of FIGS. 5 and 6 and the modular storage unit 100 of FIGS. 7 and 8A-8D include different configurations of fewer or additional components. For example, in one embodiment, the storage unit 50 does not include the component housing 56 and/or the modular storage unit 100 does not include the storage compartment 106. In a further embodiment, the display housing 54 is disposed above the component housing 56, which functions as the base member 52 of the storage unit 50. In this embodiment, the panel 66 attached to the component housing 56 can be recessed to provide leg room under the display housing. Similarly, in yet a further embodiment, the display compartment 104 is disposed above the storage compartment 106, which functions as the base member 52 for the modular storage unit 100. In this embodiment, the front plane 130 of the storage compartment 106 can be recessed from the front plane 128 of the display compartment 104. Other embodiments, include additional base members and/or storage compartments, for example.

Referred now to FIG. 9, a plurality of modular storage units 100 are configured together in quarter, half, and full arrangements 150, 152, 154, respectively, and distributed throughout a room 156. In one embodiment, the quarter arrangement 150 is adapted to fit flush against a corner 160 of the room 156. In the present embodiment, two modular storage units 100 are arranged together with adjacent side walls 114 substantially flush and aligned with each other to form the quarter arrangement. The two remaining outside side walls 114 are arranged so that a plane of the side walls extending from the modular storage units 100 forms a substantially 180 degree angle defining a back side 164 thereof. Further a half-octagon-shaped top plate 168 is adapted to cover the top of the half arrangement 152.

The full arrangement 154 includes eight modular storage units 100 arranged with adjacent side walls 114 substantially flush and aligned with each other to form a substantially octagonal structure with a back side of each modular storage units 100 enclosed within the structure. The full arrangement 154 is best adapted to fit anywhere in the room 156 away from the corners and walls 160, 166. Further an octagon-shaped top plate 170 is adapted to cover the top of the full arrangement 154.

The quarter, half, and full arrangements 150, 152, and 154 can be selectively configured using one or more modular storage units 100 to maximize efficiencies in floor space usage. Referring to FIG. 9, four quarter arrangements 150 are located in the corners 160 of the room 156 and two half arrangements 152 are located along walls 166 of the room. The remaining space defined by the walls 166 of the room 156 is efficiently utilized with a six additional full arrangements 154. As a result, there are 64 individual modular storage units 100 in the room 156 of FIG. 9 without overcrowding the room.

In other embodiments, different numbers of modular storage units 100 are configured together to form the quarter, half, and full arrangements 150-154 and appropriately shaped top plates are included to cover the tops of the arrangements. In addition, in another embodiment, the modular storage units 100 are secured together in the quarter, half, and full arrangements 150, 152, 154 using screws, bolts, adhesive, nails, and the like.

The invention has been described in an illustrative manner and it is to be understood the terminology used is intended to be in the nature of description rather than of limitation. All patents, published patent applications, and other references described herein are incorporated herein by reference as if they appear in this document in their entirety. Many modifications, equivalents, and variations of the present invention are possible in light of the above teachings; therefore, it is understood that within the scope of the below claims, the invention may be practiced other than specifically described.

INDUSTRIAL APPLICABILITY

A storage unit is adapted to store a display device and associated electronic components. The storage unit is configurable with one or more other storage units to form arrangements that easily fit in a corner of a room, along a wall in the room, or in the middle of the room. Further, the storage unit provides leg room under the display device and a work area in front of the display device. Still further, the storage unit is adaptable for use by sitting or standing users.

Numerous modifications to the present invention will be apparent to those skilled in the art in view of the foregoing description. Accordingly, this description is to be construed as illustrative only and is presented for the purpose of enabling those skilled in the art to make and use the invention and to teach the best mode of carrying out the same. The exclusive right to all modifications within the scope of the impending claims is reserved.
We claim:

1. A modular storage unit, comprising:
   a display compartment, wherein the display compartment is adapted to house a display device; and
   a base portion, wherein the display compartment is disposed above the base portion; and
   wherein the modular storage unit is configurable with one or more other modular storage units to form a plurality of substantially symmetrical multi-faceted arrangements that can fit adjacent to a substantially perpendicular corner, along a substantially flat wall, and in the middle of a room away from a corner or flat wall.

2. The modular storage unit of claim 1 further comprising a storage compartment adapted to house at least one of an electronic device and a different component, wherein the storage compartment is disposed above the display compartment.

3. The modular storage unit of claim 2, wherein the storage compartment includes a door hingedly attached thereto and a shelf disposed therein.

4. The modular storage unit of claim 1 further comprising a horizontal member disposed adjacent an upper portion of the base portion and extending from a front plane of the base portion.

5. The modular storage unit of claim 1, wherein the base portion includes a recessed front board.

6. The modular storage unit of claim 1, wherein a display device housed in the display compartment is recessed from a front plane of the display compartment.

7. The modular storage unit of claim 1, wherein two or more modular storage units are configured together to form a multi-faceted arrangement, and wherein sidewalls of the arrangement converge at a substantially 90 degree angle.

8. The modular storage unit of claim 7, wherein three or more modular storage units are configured together to form a multi-faceted arrangement, and wherein sidewalls of the arrangement converge at a substantially 180 degree angle.

9. The modular storage unit of claim 8, wherein four or more modular storage units are configured together to form a multi-faceted arrangement, wherein a back side of each of the modular storage units is enclosed by the arrangement.

10. The modular storage unit of claim 9, wherein eight modular storage units can be configured together to form a multi-faceted arrangement having a substantially octagonal arrangement.

11. A storage unit, comprising:
   a display housing adapted to receive a display device, wherein the display device is recessed from a front of the display housing;
   a component housing adapted to receive at least one of an electronic device and a different component;
   a horizontal panel, wherein the horizontal panel is disposed adjacent the display housing and the base member and extends beyond the front of the display housing; and
   a base member that supports the display housing and the component housing, wherein the display housing is disposed above the base member and the component housing is disposed above the display housing, and further wherein the base member includes a recessed front panel.

12. The storage unit of claim 11, wherein the height of the base member is in the range of about 32 to about 43 inches (about 81 to about 109 cm) to aid a user standing in front of the storage unit to view a device received in the display housing.

13. The storage unit of claim 12, wherein the height of the base member is about 35 to about 39 inches (about 88 to about 99 cm).

14. The storage unit of claim 11, wherein the height of the base member is in the range of about 22 to about 32 inches (about 55 to about 81 cm) to aid a user sitting in front of the storage unit to view a display device received in the display housing.

15. The storage unit of claim 14, wherein the height of the base member is in the range of about 25 to about 29 inches (about 65 to about 73 cm).

16. A method of housing electronic and non-electronic components, comprising the steps of:
   providing a display compartment, a storage compartment, and a base portion;
   arranging the display compartment above the base portion and arranging the storage compartment above the display compartment to form a modular storage unit; and
   configuring one or more modular storage units to form a plurality of substantially symmetrical multi-faceted arrangements that can fit adjacent to a substantially perpendicular corner, along a substantially flat wall, and in the middle of a room away from a corner or flat wall.

17. The method of claim 16 further including the step of providing a horizontal member adjacent the base portion and the display compartment, wherein the horizontal member extends from a front plane of the base portion, which includes a recessed front board, and wherein the display compartment is adapted to house a display device recessed from a front plane of the display compartment.

18. The method of claim 16, wherein two modular storage units are configured together to form a quarter arrangement, and wherein sidewalls of the arrangement converge at a substantially 90 degree angle.

19. The method of claim 16, wherein four modular storage units are configured together to form a half arrangement, and wherein sidewalls of the arrangement converge at a substantially 180 degree angle.

20. The method of claim 19, wherein eight modular storage units are configured together to form full arrangement, and wherein a back side of each unit is enclosed by the arrangement.

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