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APPLICABLE TO A SELECTED OBJECT

(57) **Abrégé/Abstract:**

An improved user interface is provided for displaying a gallery of images showing different formatting options combinations that may be applied to a selected object. When a particular image is selected an associated formatting options combination is automatically applied to the selected object.

AN IMPROVED USER INTERFACE FOR DISPLAYING A GALLERY OF FORMATTING OPTIONS APPLICABLE TO A SELECTED OBJECT

Abstract

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An improved user interface is provided for displaying a gallery of images showing different formatting options combinations that may be applied to a selected object. When a particular image is selected an associated formatting options combination is automatically applied to the selected object.

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**AN IMPROVED USER INTERFACE FOR DISPLAYING A GALLERY OF
FORMATTING OPTIONS APPLICABLE TO A SELECTED OBJECT**

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Cross-Reference to Related Applications

The present application claims priority to U.S. Provisional Application No. 60/601,815, Attorney Matter No. 60001.0407USP1, Applicant Matter No. 309417.1, filed August 16, 2004, entitled "Improved User Interfaces for Computer Software
10 Applications."

Field of the Invention

The present invention generally relates to software application user interfaces. More particularly, the present invention relates to an improved user interface for displaying a gallery of images illustrating different formatting options applicable to a
15 selected object.

Background of the Invention

With the advent of the computer age, computer and software users have grown accustomed to user-friendly software applications that help them write, calculate, organize, prepare presentations, send and receive electronic mail, make music, and the
20 like. For example, modern electronic word processing applications allow users to prepare a variety of useful documents. Modern spreadsheet applications allow users to enter, manipulate, and organize data. Modern electronic slide presentation applications allow users to create a variety of slide presentations containing text, pictures, data or other useful objects.

25 To assist users to locate and utilize functionality of a given software application, a user interface containing a plurality of generic functionality controls is typically provided along an upper, lower or side edge of a displayed workspace in which the user may enter, copy, manipulate and format text or data. Such functionality controls often

include selectable buttons with such names as “file,” “edit,” “view,” “insert,” “format,” and the like. Typically, selection of one of these top-level functionality buttons, for example “format,” causes a drop-down menu to be deployed to expose one or more selectable functionality controls associated with the top-level functionality, for example
5 “font” under a top-level functionality of “format.”

Modern software applications allow users to apply a seemingly infinite number of formatting options combinations to a given document or object. For example, a text document may have many fonts, text sizes, heading formats, display/print settings, and the like. For another example, a picture object may be shaded, rotated, colored, resized,
10 cropped, stylized, and the like. A typical user often has difficulty visualizing possible formatting options combinations, and even if the user can visualize an interesting and desirable formatting options combination, the user may lack the skill to select appropriate individual formatting options to create the desired format.

Accordingly, there is a need in the art for an improved user interface for
15 displaying a gallery of images showing different formatting options combinations that may be applied to a selected object which when selected by a user cause the automatic application of a selected formatting options combination to a selected object. It is with respect to these and other considerations that the present invention has been made.

Summary of the Invention

20 Embodiments of the present invention solve the above and other problems by providing an improved user interface for displaying a gallery of images showing different formatting options combinations that may be applied to a selected object which when selected by a user may cause the automatic application of an associated formatting options combination to the selected object.

25 According to one aspect of the invention, sets of commands may be combined and may be associated with each image so that application of a given formatting options combination may be made to a selected or inserted object by selecting the associated image. According to another aspect of the invention, a preview of the application of a given formatting options combination to a selected object may be provided upon

mouse-over or other focus on an image illustrating formatting according to the given formatting options combination. According to this aspect, once the focus or mouse-over is ceased, the formatting of the selected object returns to the original state.

According to another aspect of the invention, methods and systems provide a user interface in which is displayed a gallery of formatting controls where each formatting control illustrates a distinct formatting options combination that may be applied to a selected object. Upon receiving an indication of the selection of an object for formatting via a software application, the user interface is provided containing one or more formatting controls. A visual representation of the selected object for each of the one or more formatting controls is illustrated showing how the selected object will be formatted if the formatting attributes associated with each of the one or more formatting controls are applied to the selected object. Upon receiving an indication of a selection of one of the one or more formatting controls, formatting attributes associated with the selected formatting control are automatically applied to the selected object.

According to another aspect, upon receiving an indication of focusing on a given one of the one or more formatting controls, the one or more formatting attributes associated with the focused-on formatting control may be dynamically applied to the selected object to show how the selected object will be formatted if the one or more formatting attributes associated with the focused-on formatting control are applied to the selected object.

These and other features and advantages, which characterize the present invention, will be apparent from a reading of the following detailed description and a review of the associated drawings. It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory only and are not restrictive of the invention as claimed.

Brief Description of the Drawings

Fig. 1 is a block diagram showing the architecture of a personal computer that provides an illustrative operating environment for embodiments of the present invention.

Fig. 2 is an illustration of a computer screen display showing a ribbon-shaped user interface for displaying task-based top-level functionality tabs and for displaying a plurality of functionalities available under a selected top-level functionality tab.

Fig. 3 illustrates a computer screen display showing a ribbon-shaped user interface for providing a gallery of images illustrating the application of one or more formatting options combinations to a selected object.

Fig. 4 illustrates a computer screen display showing a ribbon-shaped user interface for providing a gallery of images showing the application of one or more formatting options combinations to a selected object.

Fig. 5 illustrates a computer screen display showing a drop-down gallery of images showing the application of one or more formatting options combinations to a selected object.

Fig. 6 is a computer screen display illustrating components of a drop-down gallery of images showing the application of one or more formatting options combinations to a selected object.

Fig. 7 illustrates the components of an expanded drop-down gallery of images illustrating the application of one or more formatting options combinations to a selected object.

Fig. 8 illustrates a computer screen display of a drop-down menu of images illustrating application of one or more formatting options combinations to a selected object.

Fig. 9 is a computer screen display illustrating components of a drop-down menu of images illustrating application of one or more formatting options combinations to a selected object.

Fig. 10 illustrates a computer screen display showing the hosting of a plurality of formatting types where each type is associated with a gallery of images illustrating the application of one or more formatting options combinations to a selected object.

Fig. 11 illustrates a gallery of images illustrating the application of one or more formatting options combinations to a selected object hosted in a modal dialog box.

Fig. 12 is a computer screen display illustrating a drop-down menu of a plurality of images where each image illustrates the application of a given formatting options combination to a selected object.

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Detailed Description

As briefly described above, embodiments of the present invention are directed to an improved user interface for displaying a gallery of images showing different formatting options combinations that may be applied to a selected object. According to embodiments of the present invention, all commands necessary for applying a given formatting options combination as represented by a displayed image may be executed by selecting the image. Selecting a displayed image from the gallery of images causes the formatting options combination to be automatically applied to the selected object. According to other embodiments of the present invention, focusing on or mousing-over a displayed image may cause a dynamic application of the formatting options combination associated with the focused-on image to a selected object to show a user how the selected object will be displayed if the formatting options combination associated with the focused-on image is actually selected for application to the selected object.

In the following detailed description, references are made to the accompanying drawings that form a part hereof, and in which are shown by way of illustrations specific embodiments or examples. These embodiments may be combined, other embodiments may be utilized, and structural changes may be made without departing from the spirit or scope of the present invention. The following detailed description is therefore not to be taken in a limiting sense and the scope of the present invention is defined by the appended claims and their equivalents.

Referring now to the drawings, in which like numerals represent like elements through the several figures, aspects of the present invention and the exemplary operating environment will be described. Fig. 1 and the following discussion are intended to provide a brief, general description of a suitable computing environment in which the invention may be implemented. While the invention will be described in the

general context of program modules that execute in conjunction with an application program that runs on an operating system on a personal computer, those skilled in the art will recognize that the invention may also be implemented in combination with other program modules.

5 Generally, program modules include routines, programs, components, data structures, and other types of structures that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the invention may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable
10 consumer electronics, minicomputers, mainframe computers, and the like. The invention may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.

15 Turning now to Fig. 1, an illustrative computer architecture for a personal computer 2 for practicing the various embodiments of the invention will be described. The computer architecture shown in Fig. 1 illustrates a conventional personal computer, including a central processing unit 4 ("CPU"), a system memory 6, including a random access memory 8 ("RAM") and a read-only memory ("ROM") 10, and a system bus 12
20 that couples the memory to the CPU 4. A basic input/output system containing the basic routines that help to transfer information between elements within the computer, such as during startup, is stored in the ROM 10. The personal computer 2 further includes a mass storage device 14 for storing an operating system 16, application programs, such as the application program 105, and data.

25 The mass storage device 14 is connected to the CPU 4 through a mass storage controller (not shown) connected to the bus 12. The mass storage device 14 and its associated computer-readable media, provide non-volatile storage for the personal computer 2. Although the description of computer-readable media contained herein refers to a mass storage device, such as a hard disk or CD-ROM drive, it should be

appreciated by those skilled in the art that computer-readable media can be any available media that can be accessed by the personal computer 2.

By way of example, and not limitation, computer-readable media may comprise computer storage media and communication media. Computer storage media includes
5 volatile and non-volatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data. Computer storage media includes, but is not limited to, RAM, ROM, EPROM, EEPROM, flash memory or other solid state memory technology, CD-ROM, DVD, or other optical storage, magnetic
10 cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can be accessed by the computer.

According to various embodiments of the invention, the personal computer 2 may operate in a networked environment using logical connections to remote computers
15 through a TCP/IP network 18, such as the Internet. The personal computer 2 may connect to the TCP/IP network 18 through a network interface unit 20 connected to the bus 12. It should be appreciated that the network interface unit 20 may also be utilized to connect to other types of networks and remote computer systems. The personal computer 2 may also include an input/output controller 22 for receiving and processing
20 input from a number of devices, including a keyboard or mouse (not shown). Similarly, an input/output controller 22 may provide output to a display screen, a printer, or other type of output device.

As mentioned briefly above, a number of program modules and data files may be stored in the mass storage device 14 and RAM 8 of the personal computer 2,
25 including an operating system 16 suitable for controlling the operation of a networked personal computer, such as the WINDOWS operating systems from Microsoft Corporation of Redmond, Washington. The mass storage device 14 and RAM 8 may also store one or more application programs. In particular, the mass storage device 14 and RAM 8 may store an application program 105 for providing a variety of
30 functionalities to a user. For instance, the application program 105 may comprise many

types of programs such as a word processing application, a spreadsheet application, a desktop publishing application, and the like. According to an embodiment of the present invention, the application program 105 comprises a multiple functionality software application for providing word processing functionality, slide presentation
5 functionality, spreadsheet functionality, database functionality and the like. Some of the individual program modules that may comprise the multiple functionality application 105 include a word processing application 125, a slide presentation application 135, a spreadsheet application 140 and a database application 145. For purposes of illustration, the applications 125, 135, 140, 145 are shown as separate
10 modules in Fig. 1, but, as should be understood, each of these applications may be modules of the multiple functionality application 105. An example of such a multiple functionality application 105 is OFFICE manufactured by Microsoft Corporation. Other software applications illustrated in Fig. 1 include an electronic mail application 130.

15 Fig. 2 is an illustration of a computer screen display showing a ribbon-shaped user interface for displaying task-based top-level functionality tabs and for displaying a plurality of functionalities available under a selected top-level functionality tab. As briefly described above, the improved user interface of the present invention includes a ribbon-shaped user interface for displaying selectable controls associated with task-
20 based functionality available under a given software application, such as the software application 105 illustrated in Fig. 1. A first section 210 of the user interface 200 includes generic selectable controls for functionality not associated with a particular task, such as word processing versus spreadsheet data analysis. For example, the section 210 includes selectable controls for general file commands such as "file open,"
25 "file save" and "print." According to one embodiment of the present invention, the selectable controls included in the first section 210 are controls that may be utilized by a variety of software applications comprising a multiple functionality application 105. That is, the selectable controls included in the first section 210 may be controls that are generally found and used across a number of different software applications.

Selectable controls included in the first section 210 may be utilized for all such applications comprising such a multiple functionality application, but other selectable controls presented in the user interface 200 described below, may be tailored to particular tasks which may be performed by particular software applications comprising the multiple functionality application. On the other hand, it should be appreciated that the user interface 200 described herein may be utilized for a single software application such as a word processing application 125, a slide presentation application 135, a spreadsheet application 140, a database application 145, or any other software application which may utilize a user interface for allowing users to apply functionality of the associated application.

Referring still to Fig. 2, adjacent to the first section 210 of the user interface 200 is a task-based tab section. The tab section includes selectable tabs associated with task-based functionality provided by a given software application. For purposes of example, the task-based tabs illustrated in Fig. 2 are associated with tasks that may be performed using a word processing application 125. For example, a "Writing" tab 215 is associated with functionality that may be utilized for performing writing tasks. An "Insert" tab 220 is associated with functionality associated with performing insert operations or tasks. A "Page Layout" tab 230 is associated with functionality provided by the associated application for performing or editing page layout attributes of a given document.

As should be appreciated, many other task-based tabs or selectable controls may be added to the tab section of the user interface for calling functionality associated with other tasks. For example, task tabs may be added for text effects, document styles, review and comment, and the like. And, as described above, the user interface 200 may be utilized for a variety of different software applications. For example, if the user interface 200 is utilized for a slide presentation application, tabs contained in the tab section may include such tabs as "Create Slides," "Insert," "Format," "Drawing," "Effects," and the like associated with a variety of tasks that may be performed by a slide presentation application. Similarly, tabs that may be utilized in the tab section of the user interface 200 for a spreadsheet application 140 may include such tabs as "Data"

or “Data Entry,” “Lists,” “Pivot Tables,” “Analysis,” “Formulas,” “Pages and Printing,” and the like associated with tasks that may be performed using a spreadsheet application.

Immediately beneath the generic controls section 210 and the task-based tab
5 section is a selectable functionality control section for displaying selectable
functionality controls associated with a selected tab 215, 220, 230 from the task-based
tab section. According to embodiments of the present invention, when a particular tab,
such as the “Writing” tab 215 is selected, selectable functionality available from the
associated software application for performing the selected task, for example a writing
10 task, is displayed in logical groupings. For example, referring to Fig. 2, a first logical
grouping 240 is displayed under a heading “Clipboard.” According to embodiments of
the present invention, the clipboard section 240 includes selectable functionality
controls logically grouped together and associated with clipboard actions underneath the
general task of writing. For example, the clipboard section 240 may include such
15 selectable controls as a cut control, a copy control, a paste control, a select all control,
etc. Adjacent to the clipboard section 240, a second logical grouping 250 is presented
under the heading “Formatting.”

Selectable controls presented in the “Formatting” section 250 may include such
selectable controls as text justification, text type, font size, line spacing, boldface,
20 italics, underline, etc. Accordingly, functionalities associated with formatting
operations are logically grouped together underneath the overall task of “Writing.” A
third logical grouping 260 is presented under the heading “Writing Tools.” The writing
tools section 260 includes such writing tools as find/replace, autocorrect, etc.
According to embodiments of the present invention, upon selection of a different task-
25 based tab from the tab section, a different set of selectable functionality controls in
different logical groupings is presented in the user interface 200 associated with the
selected task-based tab. For example, if the “Insert” task tab 220 is selected, the
selectable functionality controls presented in the user interface 200 are changed from
those illustrated in Fig. 2 to include selectable functionality controls associated with the
30 insert task. For detailed information regarding the user interface 200, illustrated in Fig.

2, see United States Patent Application, Attorney Matter No. 60001.0410USU1, Applicant Matter No. 309411.01, entitled "Command User Interface for Displaying Selectable Software Functionality Controls," which is incorporated herein by reference as if fully set out herein.

5 Fig. 3 illustrates the user interface 200 utilized in accordance with a slide presentation application 135. According to the example user interface 200 illustrated in Fig. 3, the "Page Layout" tab 230 is selected for displaying one or more logical groupings of selectable functionality controls for applying functionality to a selected object or document under a page layout task. In accordance with embodiments of the
10 present invention, selection of the "Page Layout" tab 230 causes the presentation of a number of images 310, 320 representative of formatting options combinations that may be applied to the selected document. That is, a gallery of images is presented to the user where each image represents the way in which the selected document or object will be formatted if the formatting options combination illustrated by a given image is applied
15 to the selected document or object.

As described above, a gallery of images such as those illustrated and described herein may be launched for use by selecting a task-based tab, for example the "Page Layout" tab described above. Alternatively, a gallery of images may be launched for use by selecting an object in a document. According to another embodiment, a gallery
20 of images described herein may be launched in response to inserting an object into a document. For example, if a table object is inserted into a document, a gallery of images showing formatting options combinations that may be applied to table objects may be automatically launched to provide a user with a number of potential formatting options that may be automatically applied to the table object as described herein. In
25 addition, a gallery of images as described herein may apply to an implied selection, for example a whole document, slide, spreadsheet and the like, as opposed to a specific selection, for example a particular area of a document, slide, spreadsheet or other or to a specific object contained therein.

According to embodiments of the present invention, all commands necessary for
30 applying a given formatting options combination to a selected document or object are

executed by selecting the associated displayed image from the user interface 200. That is, if the user sees an image in the gallery of images in the user interface 200 that is representative of formatting options the user desires to have applied to a selected document or object, the user may select the desired image, and the formatting options combination is automatically applied to the selected document or object. For example, if the user is preparing a slide using a slide presentation application, or if the user is typing a letter or memorandum using a word processing application, the user may select the "Page Layout" tab 230 to display a gallery of images showing potential page layout formatting options. If the user sees a particular image in the gallery of images that prescribes a page layout of "all text centered," for example, the user may select that image, and all required commands necessary for formatting the user's document accordingly are executed on the selected document. Thus, the user is not required to search one or more formatting menus for commands necessary for formatting the document or object. The functionality according to the present invention is particularly helpful when formatting a desired document or object requires a complex series of formatting commands in order to create the desired formatting.

According to embodiments of the present invention, the images comprising the gallery of images, described herein, may be static images illustrating an example of how an object formatted according to a selected image will be displayed. Alternatively, the gallery of images may be comprised of one or more dynamically produced images showing how the actual selected object or document will be displayed upon selection of a given image. For example, a static representation may show a generic image, such as a generic picture, rotated, shaded, or otherwise formatted according to a set of options, which, if selected, will apply to a selected object. On the other hand, a dynamic image may be in the form of a bitmap generated and displayed of the actual object selected by the user from the user's document with the formatting options combination applied. For example, if a picture image in a user's document is a picture of the user's family pet, a dynamic image showing rotation of the picture 90° will show a bitmap image of the user's actual family pet shown in a 90° rotation. A static image, on the other hand, may

show a canned picture image such as a landscape image or clipart image rotated according to the formatting options associated with the image.

The illustrations and descriptions provided below, with respect to Figs. 4 through 10, show application of embodiments of the present invention with respect to picture objects. As should be understood by those skilled in the art, the illustrations provided with respect to Figs. 4 through 10 are for purposes of example only and do not limit application of embodiments of the present invention with respect to other types of formatting options combinations. That is, formatting options combinations may be illustrated for any type of formatting options that may be applied to selected documents or objects. For example, formatting options combinations may be illustrated in a gallery of images for text formatting options, including fonts, text justification, text size, text coloring, and the like. Likewise, formatting options combinations may be illustrated in a gallery of images for various desktop publishing documents, including advertisement flyers, news articles, business documents, and the like. Indeed, any formatting options combination applicable to any document or object may be illustrated in an image in a gallery of images, and all commands necessary for applying the formatting options combination to a document or document object may be “rolled up” and executed by selection of the formatting options combination image. Moreover, the images presented in a gallery of images may include information about formatting options combinations associated with given images. For example, a given image may include text descriptions. That is, a gallery of images may include one or more individual text descriptions that describes one or more formatting options combinations that may be applied to a selected or inserted object.

According to embodiments of the present invention, the gallery of images may be presented as an “in-ribbon” gallery of images disposed horizontally within the ribbon-shaped user interface 200, as illustrated in Fig. 3. Referring to Fig. 4, components of an “in-ribbon” gallery of images are illustrated. The in-ribbon gallery of images includes a title bar 410 for identifying the nature of the gallery of images. A gallery title 420 identifies the type of images displayed in the gallery of images and a gallery filter 430 identifies one or more subsets of the gallery of images that is

displayed to the user. For example, the gallery filter 430 may describe the images displayed to the user as all images, most used images, my images, and the like. A large thumbnail preview 460 is illustrated in Fig. 4 for allowing the user to focus on a given image without applying the formatting options combination of the image to a selected object or document so that the user may see a preview of attributes of the image. The scroll buttons 470 may be utilized in the “in-ribbon” gallery of images where more images are available than may be displayed in the user interface 200 based on available space. Accordingly, the scroll buttons 470 allow the user to scroll through all available images before selecting a particular image. The current selection 450 shows a highlighted image representative of the formatting options combination that is presently applied to the selected object or document.

According to an embodiment of the invention, an expanded “in-ribbon” gallery of images may be displayed upon selection of a control such as the “Resizing Button” illustrated in Fig. 4. Selection of the “Resizing Button” may expand the gallery of images for displaying additional images. Upon expansion of the gallery, it may be displayed such that the gallery extends down and out of the user interface 200 to make room for additional selectable controls (images) similar to the expanded gallery illustrated in Fig. 7 (described below).

As shown in Fig. 5, a “drop-down” gallery of images is illustrated. According to a drop-down gallery of images, the gallery of images is not displayed within the ribbon-shaped user interface 500, but the gallery of images is displayed horizontally below the user interface 500. According to embodiments of the present invention, a drop-down gallery of images may be utilized when selection of a given task-based tab, such as the “Style Gallery” tab 510, results in the presentation of multiple types of formatting options combinations that may be applied to the selected document or object. For example, referring to Fig. 5, selection of the “Style Gallery” tab 510 results in the presentation of a “Picture Styles” section 505, a “Picture Borders” section, and a “Get More Styles” section. Advantageously, display of the gallery of images below the user interface 500 allows the user to browse the gallery of images without being obstructed from viewing other potential selectable controls associated with the selected top-level

task-based tabs 510, 515, 520. As illustrated in Fig. 6, the drop-down version of the gallery of images is similar to the in-ribbon gallery of images but for its display beneath the user interface 200, 500.

Referring now to Fig. 7, an expanded drop-down gallery of images may be displayed where multiple types of images responsive to the selected gallery of images may be displayed in a single drop-down gallery of images. For example, the drop-down gallery of images illustrated in Fig. 7 shows a “Most Frequently Used” gallery of images 730, a “My Favorites” gallery of images 740, and an “Other Picture Styles” gallery of images 750.

Referring now to Fig. 8, a visual picker gallery of images is displayed. A visual picker gallery of images drops down from the ribbon-shaped user interface 500. The visual picker gallery of images may be used as described above to “roll up” a common set of formatting commands or options and to provide a visual, easy-to understand representation of common formatting options that may be otherwise difficult to select by a given user. The visual picker gallery of images is similar to the “in-ribbon” and “drop-down” gallery of images described above in that the images may be static images or the images may be live images that may be dynamically altered based on user input and based on the actual selected object to which the images apply. After selection of a task-based tab 510, 515, 520, the plurality of selectable functionality controls 810 are displayed in the user interface 500. For example, as illustrated in Fig 8, a “Rotate Picture” control, a “Picture Borders” control and a “Get More Styles” control are displayed in the user interface 500. If the user has an embedded picture object in a selected document and the user desires to rotate the selected picture object, the user may select the “Rotate Picture” control 810 to launch the visual picker gallery of images 820. As shown in the drop-down gallery of images, a variety of picture rotation options are provided to the user. For example, a “No Rotation” option 825, a “Rotate Left 90°” option 830, and a “Rotate 180°” option 840 are provided. Other options include “Flip Vertically” and “Flip Horizontally.” As shown at the bottom of drop-down gallery of images 820, a “More Rotate Options” button is provided to allow the user to select additional images for application to a selected picture object.

As described herein, each image is associated with a set of formatting options and commands such that selection of any of the images causes the associated formatting options and commands to automatically be executed on the selected object. For example, if the user desires to rotate the selected object 180° from its present orientation, the user may select the “Rotate 180°” image 840 to automatically cause the selected object to be rotated 180°. Advantageously, because the gallery of images provides a visual representation of the result of applying a set of formatting options to the selected object, the user knows in advance the effect of applying the associated formatting options combination to the selected object or document. Accordingly, the user is not required to search through a variety of formatting options menus to determine the effect of different formatting options combinations on a selected object by trial and error.

Referring to Fig. 9, components of the visual picker gallery of images are illustrated. The “Rotate Picture” control 810 illustrates a selectable functionality control displayed in the user interface 500 upon selection of a given task-based tab. The images 930, 940, 950, 960 illustrate static or dynamic representations of application of a given set of formatting options to a selected object. The descriptive text 910, 920 provides descriptive information to the user regarding the nature of the formatting options combination applied to the illustrated image. As described above, the “More Rotate Options” button 970 is illustrative of a button that may be disposed in the drop-down gallery of images for selecting additional potential formatting options combinations not displayed with the initial display of images.

Referring to Fig. 10, selection of a given task-based tab 510, 515, 520 may cause a presentation of multiple galleries of images hosted in a single selectable functionality control section 1010. For example, the selectable functionality control section 1010 includes three individual galleries hosted under a section headed “Picture Effects.” If the user desires to first apply formatting options combinations associated with one of the hosted galleries, the user may select the hosted gallery to cause a drop-down gallery of images, as illustrated in Figs. 5 and 6, to be displayed beneath the user interface 500. The user may then select to have formatting options combinations

provided thereby to a selected object or document. If the user next decides to apply formatting options combinations associated with one of the other hosted galleries, for example the “Shading” Gallery, the user may select the “Shading Gallery” to display a drop-down gallery of images showing different formatting options combinations
 5 associated with shading a selected object or document.

Referring now to Fig. 11, according to an alternative embodiment of the present invention, a gallery of images may be hosted in a modal or modeless dialog 1110 that may be displayed on the user’s computer display screen over a document or object. As shown in Fig. 11, a plurality of images 1120, 1130 may be displayed in the gallery of
 10 images hosted in the dialog to allow a user to select a given image for application to a selected document or object, as described herein. The image 1140 is illustrative of a larger preview image for showing application of a given formatting options combination to a selected document or object. Additionally, a drop-down gallery of images, as described above with reference to Fig. 5, may be displayed under or adjacent
 15 to or otherwise in response to a selection of a given image or control in the dialog. For example, a given image contained in the dialog 1110 may be representative of a number of formatting options combinations that may be applied to a document or object. Selection of such an image may cause the display of a drop-down menu hosting a one or more images representing application of the available formatting options combinations.

Fig. 12 illustrates the presentation of a drop-down gallery of images 1200 that is
 20 dropped beneath a user interface 200 utilized by a word processing application 125. As illustrated in Fig. 12, “Page Layout” task-based tab 230 is selected so that one or more selectable functionality controls groupings are displayed in the user interface 200 for applying functionality to a selected document or object in association with a page layout
 25 task. Under the selectable functionalities control section headed “Header & Footer,” a “Templates” control 1208 is provided. Selection of the templates control 1208 causes a drop-down gallery of images 1200 to be displayed to present to a user one or more images showing application of selected formatting options combinations to a document. If the user determines that one of the formatting options images is desirable, the user
 30 may select the desired image, and all formatting options commands necessary for

applying the desired formatting options combination to the selected document or object are executed.

As described herein, an improved user interface for displaying a gallery of images showing application of different formatting options combinations applicable to a
5 selected object or document is provided. It will be apparent to those skilled in the art that various modifications or variations may be made in the present invention without departing from the scope or spirit of the invention. Other embodiments of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein.

WE CLAIM:

1. A method for providing a gallery of formatting options in an improved user interface, comprising:

providing a gallery of formatting controls, whereby each of one or more formatting controls contained in the gallery of formatting controls is associated with one or more formatting attributes that may be applied to an object;

displaying in the user interface a visual representation of an object of a same type as the object for each of the one or more formatting controls illustrating how the object will be formatted if the formatting attributes associated with each of the one or more formatting controls are applied to the object;

receiving an indication of a selection of one of the one or more formatting controls; and

automatically applying the one or more formatting attributes associated with the selected formatting control to the object.

2. The method of Claim 1, whereby providing a gallery of formatting controls includes providing the gallery of formatting controls within the user interface.

3. The method of Claim 1, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a drop-down menu displayed underneath the user interface.

4. The method of Claim 3, further comprising expanding the drop-down menu containing the gallery of formatting controls to display in the drop-down menu additional formatting controls associated with additional formatting attributes that may be applied to the selected object.

5. The method of Claim 1, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a dialog displayed in a software application workspace.

6. The method of Claim 5, further comprising providing an additional gallery of formatting controls in a drop-down menu displayed in response to a selection of a given formatting control from the dialog.

7. The method of Claim 1, whereby providing a gallery of formatting controls includes providing in the user interface a plurality of gallery controls for selecting one of a plurality of galleries of formatting controls, whereby each of the plurality of galleries of formatting controls contains one or more formatting controls associated with one or more formatting attributes that may be applied to the selected object.

8. The method of Claim 7, further comprising receiving a selection of one of the plurality of gallery controls; and

displaying one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control.

9. The method of Claim 8, further comprising displaying the one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control in a drop-down menu of formatting controls.

10. The method of Claim 1, further comprising:
receiving an indication of focusing on a given one of the one or more formatting controls; and

in response to receiving a focusing indication on a given one of the one or more formatting controls, dynamically applying formatting attributes associated with the focused on formatting control to the selected object to show how the selected object will be formatted if the one or more formatting attributes associated with the focused on formatting control are applied to the selected object.

11. The method of Claim 10, upon receiving an indication of cessation of focusing on the given one of the one or more formatting controls, reversing the dynamic application of the one or more formatting attributes associated with the focused-on formatting control to the selected object such that the selected object is formatted according to formatting attributes applied to the selected object before dynamically applying the formatting attributes associated with the focused-on formatting control.

12. An improved user interface for providing a gallery of formatting options in an improved user interface, comprising:

one or more tabs disposed in an upper row of the user interface, each of said one or more tabs identifying a task that may be performed on a selected object, whereby one or more of said one or more tabs being operative upon selection to cause a display of a gallery of formatting controls, whereby each of one or more formatting controls contained in the gallery of formatting controls is associated with one or more formatting attributes that may be applied to the selected object; and

each of the one or more formatting controls including a visual representation of the selected object illustrating how the selected object will be formatted if the formatting attributes associated with each of the one or more formatting controls are applied to the selected object.

13. The user interface of Claim 12, wherein said gallery of formatting controls is disposed within the user interface.

14. The user interface of Claim 12, wherein said gallery of formatting controls is disposed in a drop-down menu displayed underneath the user interface.

15. The user interface of Claim 12, wherein said gallery of formatting controls is disposed in an expandable drop-down menu containing additional formatting controls associated with additional formatting attributes that may be applied to the selected object.

16. The user interface of Claim 12, wherein said gallery of formatting controls is disposed within a dialog displayed in a software application workspace.

17. A computer readable medium containing computer executable instructions which when executed by a computer perform a method for providing a gallery of formatting options in an improved user interface, comprising:

receiving an indication of selection of an object for formatting via a software application;

providing a gallery of formatting controls, whereby each of one or more formatting controls contained in the gallery of formatting controls is associated with one or more formatting attributes that may be applied to the selected object;

displaying in the user interface a visual representation of an object of a same type as the selected object for each of the one or more formatting controls illustrating how the selected object will be formatted if the formatting attributes associated with each of the one or more formatting controls are applied to the selected object;

receiving an indication of a selection of one of the one or more formatting controls; and

automatically applying the one or more formatting attributes associated with the selected formatting control to the selected object.

18. The computer readable medium of Claim 17, whereby providing a gallery of formatting controls includes providing the gallery of formatting controls within the user interface.

19. The computer readable medium of Claim 17, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a drop-down menu displayed underneath the user interface.

20. The computer readable medium of Claim 19, further comprising expanding the drop-down menu containing the gallery of formatting controls to display in the drop-down menu additional formatting controls associated with additional formatting attributes that may be applied to the selected object.

21. The computer readable medium of Claim 17, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a dialog displayed in a software application workspace.

22. The computer readable medium of Claim 21, further comprising providing an additional gallery of formatting controls in a drop-down menu displayed in response to a selection of a given formatting control from the dialog.

23. The computer readable medium of Claim 17, whereby providing a gallery of formatting controls includes providing in the user interface a plurality of gallery controls for selecting one of a plurality of galleries of formatting controls, whereby each of the plurality of galleries of formatting controls contains one or more formatting controls associated with one or more formatting attributes that may be applied to the selected object.

24. The computer readable medium of Claim 23, further comprising receiving a selection of one of the plurality of gallery controls; and

displaying one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control.

25. The computer readable medium of Claim 24, further comprising displaying the one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control in a drop-down menu of formatting controls.

26. The computer readable medium of Claim 17, further comprising:
receiving an indication of focusing on a given one of the one or more formatting controls; and

in response to receiving a focusing indication on a given one of the one or more formatting controls, dynamically applying formatting attributes associated with the focused on formatting control to the selected object to show how the selected object will be formatted if the one or more formatting attributes associated with the focused on formatting control are applied to the selected object.

27. The computer readable medium of Claim 26, upon receiving an indication of cessation of focusing on the given one of the one or more formatting controls, reversing the dynamic application of the one or more formatting attributes associated with the focused-on formatting control to the selected object such that the selected object is formatted according to formatting attributes applied to the selected object before dynamically applying the formatting attributes associated with the focused-on formatting control.

28. A method for providing a gallery of formatting options in an improved user interface, comprising:

providing one or more tabs in the user interface, whereby one or more of said one or more tabs identifies a formatting task that may be performed on a selected object;

providing a gallery of formatting controls associated with a selected formatting task and associated tab, whereby each of the one or more formatting controls contained in the gallery of formatting controls is associated with one or more formatting attributes that may be applied to a selected object; and

displaying on each formatting control a visual representation of the selected object illustrating how the selected object will be formatted if the formatting attributes associated with each of the one or more formatting controls are applied to the selected object.

29. The method of Claim 28, further comprising:

receiving an indication of a selection of one of the one or more formatting controls; and

automatically applying the one or more formatting attributes associated with the selected formatting control to the selected object.

30. The method of Claim 28, whereby providing a gallery of formatting controls includes providing the gallery of formatting controls within the user interface.

31. The method of Claim 28, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a drop-down menu displayed underneath the user interface.

32. The method of Claim 31, further comprising expanding the drop-down menu containing the gallery of formatting controls to display in the drop-down menu additional formatting controls associated with additional formatting attributes that may be applied to the selected object.

33. The method of Claim 28, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a dialog displayed in a software application workspace.

34. The method of Claim 28, whereby providing a gallery of formatting controls includes providing in the user interface a plurality of gallery controls for selecting one of a plurality of galleries of formatting controls, whereby each of the plurality of galleries of formatting controls contains one or more formatting controls associated with one or more formatting attributes that may be applied to the selected object.

35. The method of Claim 34, further comprising:
receiving a selection of one of the plurality of gallery controls; and
displaying one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control.

36. The method of Claim 35, further comprising displaying the one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control in a drop-down menu of formatting controls.

37. A computer readable medium containing computer executable instructions which when executed by a computer perform a method for providing a gallery of formatting options in an improved user interface, comprising:

providing one or more tabs in the user interface, whereby one or more of said one or more tabs identifies a formatting task that may be performed on a selected object;

providing a gallery of formatting controls associated with a selected formatting task and associated tab, whereby each of the one or more formatting controls contained in the gallery of formatting controls is associated with one or more formatting attributes that may be applied to a selected object; and

displaying on each formatting control a visual representation of the selected object illustrating how the selected object will be formatted if the formatting attributes associated with each of the one or more formatting controls are applied to the selected object.

38. The computer readable medium of Claim 37, further comprising:

receiving an indication of a selection of one of the one or more formatting controls; and

automatically applying the one or more formatting attributes associated with the selected formatting control to the selected object.

39. The computer readable medium of Claim 37, whereby providing a gallery of formatting controls includes providing the gallery of formatting controls within the user interface.

40. The computer readable medium of Claim 37, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a drop-down menu displayed underneath the user interface.

41. The computer readable medium of Claim 40, further comprising expanding the drop-down menu containing the gallery of formatting controls to display in the drop-down menu additional formatting controls associated with additional formatting attributes that may be applied to the selected object.

42. The computer readable medium of Claim 37, whereby providing the gallery of formatting controls includes providing the gallery of formatting controls in a dialog displayed in a software application workspace.

43. The computer readable medium of Claim 37, whereby providing a gallery of formatting controls includes providing in the user interface a plurality of gallery controls for selecting one of a plurality of galleries of formatting controls, whereby each of the plurality of galleries of formatting controls contains one or more formatting controls associated with one or more formatting attributes that may be applied to the selected object.

44. The computer readable medium of Claim 43, further comprising:
receiving a selection of one of the plurality of gallery controls; and
displaying one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control.

45. The computer readable medium of Claim 44, further comprising displaying the one or more formatting controls contained in a gallery of formatting controls associated with the selected gallery control in a drop-down menu of formatting controls.

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Application number: numéro de demande: 02512036

Figures: 2-12

Pages: _____

DRW-IP

Unscannable items
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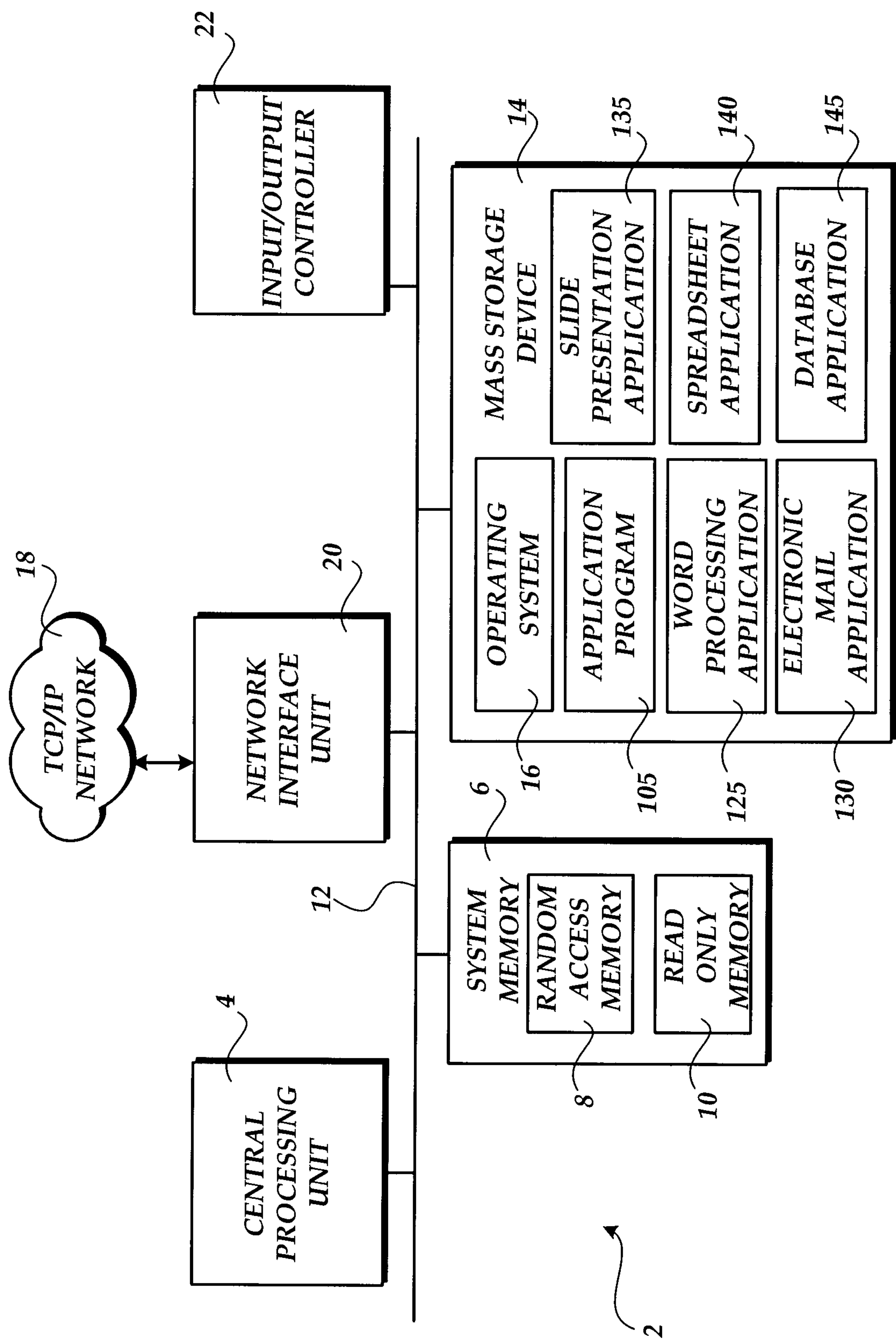


Fig. 1