touch pad, joy stick, voice activated control system, or the like device used to position a cursor on a display device, as would be apparent to a person skilled in the relevant art.

[0055] The terms "user definable interface" and "Zenu™ UDI" are used interchangeably herein to refer to the present invention as described below.

[0056] The term "window" or "windows" are used herein according to their customary meaning to refer to portions of the display device that are divided into areas, which function as a separate input/output device under the control of different application programs, as would be apparent to a person skilled in the relevant art. This gives the user the ability to see the output of several processes at once and to choose which one will receive input by selecting its window usually with a pointing device. WINO refers to Windows, Icons, Menus and Pointers (or maybe windows, icons, mouse, pull-down menus). The style of graphical user interface invented at Xerox PARC, later popularized by the Apple Macintosh and now available in other varieties such as the X Window System, OSF/Motif, NeWS RISC OS, and Microsoft® Windows, as would be apparent to a person skilled in the relevant art.

[0057] I. Overview

[0058] **FIG. 1** illustrates a conventional desktop **100** as presented on a display **102** in a window **104**. The desktop **100** includes a taskbar **106**, and a plurality of applications, folders, files, shortcuts, and the like (referred to generally as **108**) cluttering the desktop. The desktop typically occupies the whole display, and attempts to represent the top of an office desk (i.e., a real desktop). On a conventional graphical user interface, the icons on the screen resemble objects that would be found on a real desktop, such as file folders, a clock, etc. Users like to locate applications, folders, files, shortcuts, and the like on the desktop for easy access. As is typical, access is no longer easy when the desktop becomes cluttered. Among the many advantages and uses of the present invention, it brings new order to the desktop.

[0059] **FIG. 2A** illustrates a Zenu™**200**, according to one embodiment of the present invention. In a cursor-based computing apparatus having a display **102**, the Zenu™**200** comprises a user definable interface (UDI) that is displayed upon activation by a user. The UDI has a plurality of buttons and is displayed in a relative position about the cursor position to substantially reduce cursor commute. The Zenu™ (UDI) **200** permits the user to select a visual appearance and shape of the UDI, as well as other characteristics, such as the number of buttons to be displayed and the commands associated with those buttons. Also, the Zenu™**200** permits the user to assign commands to the buttons by dragging and dropping from one or more applications associated with (e.g., capable of running on, or otherwise coupled to) the apparatus.

[0060] In this embodiment, ZenU™**200** can have multiple groups of buttons. The multiple groups of buttons can have different functionality. For example, as illustrated in **FIG. 2A**, a first group of buttons on the lower half of the Zenu™**200** (buttons **204**, **206** and those located on the outer circumference there between) can each have a first class of functionality. The second group of buttons (such as the remaining buttons on the outer circumference on the top portion of Zenu™**200**) can have a second class of functionality, the second class of functionality having some association with the first class of functionality. For example, the first class of functionality can cause icons to appear on other buttons, and the second class of functionality can cause some action associated with another button to occur.

[0061] An example of the association between the first class of functionality of the first group of buttons and the second class of functionality of the second group of buttons is illustrated at **FIG. 2B**. By way of example, not limitation, reference is made to the "My computer" button **206**. My computer button **206** is a button in the first group. When My computer button **206** is clicked or otherwise selected using a pointing device, software action causes icons to appear on the second group of buttons. In this example, buttons **208** through **216** of the second group of buttons display icons corresponding to options, commands, files, or the like, associated with My computer button **206** of the first group of buttons.

[0062] Similarly, as shown in **FIG. 2C**, when the user clicks or otherwise selects Internet browser button **220** of the first group of buttons, the second group of buttons will display features, commands, URLs, or the like, associated with the Internet browser button **220**. Selecting the applications button **220** causes various icons corresponding to resident applications to be displayed on the second group of buttons, such as Zenu™ button **222**, find button **224**, Internet browser button **226**, etc.

[0063] Zenu™**200** can comprise additional groups of buttons as illustrated generally at **230**. The commands associated with button groups **230** can comprise common cursor control operations as illustrated by the arrows at upper and lower groups **230**, or the like.

[0064] **FIG. 3A** illustrates a conventional menu driven display, which in this case is a tool bar **302** of Microsoft® Internet Explorer. Illustrated in the main window is a web page **304** corresponding to the Internet address at **306**. **FIG. 3B** illustrates Microsoft® Internet Explorer at the same web page after being launched by a previously invoked Zenu™**310**. The commands of tool bar **302** in **FIG. 3A** are illustrated in the upper button group of Zenu™**310**, as shown generally at **312**.

[0065] Thus, according to the present invention, use of the Zenu™**310** in this example simplifies the user's interaction with the Microsoft® Internet Explorer application by providing common Microsoft® Internet Explorer commands on the Zenu™**310** for easy access by the user. Also, as will be described in detail below, the user can define the commands associated with the first group of buttons. For example, the web page displayed in **FIG. 3B** could be the home page associated with the Microsoft® Internet Explorer application. In this case, the user's selection of the icon **314** would bring up this web page. Further description of the functionality including the operation and definability of a Zenu™ UDI will be addressed in the next sections.

[0066] II. Functionality

[0067] A. Title Operation

[0068] 1. What Can the Zenu™ UDI Do?

[0069] **FIG. 4** illustrates user definable interface (UDI or Zenu™) **400** used to launch applications, files, or web pages, or the like, according to an embodiment of the present