COMMAND USER INTERFACE FOR DISPLAYING MULTIPLE SECTIONS OF SOFTWARE FUNCTIONALITY CONTROLS

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation in part of U.S. patent application Ser. No. 10/955,967, "now U.S. Pat. No. 8,255,828," filed Sep. 30, 2004, entitled Command User Interface For Displaying Selectable Software Functionality Controls, which claims priority to U.S. patent application Ser. No. 60/601,815, filed Aug 16, 2004. The above-listed applications are expressly incorporated herein by their reference. To the extent appropriate, a claim of priority is made to each of the above-recited applications.

BACKGROUND

[0001] 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 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.

[0002] 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 "font" under a top-level functionality of "format."

[0003] After a user selects a desired functionality control, or if the user moves the mouse cursor to a different location, the drop-down menu typically disappears. If the user determines that functionality of the first drop-down menu was the desired functionality, the user must remember which top-level functionality was selected, reselect that functionality and then find the desired functionality control all over again. Accordingly, in

WE CLAIM:

1. A method for providing functionality from a software application via an improved user interface, the method comprising:

providing a plurality of functionalities available from the software application;

organizing the plurality of functionalities according to a plurality of tasks that the software application is configured to perform;

providing in the user interface at least one user interface tab for the plurality of tasks;

upon receiving an indication of a selection of a first user interface tab, displaying in the user interface a first functionality control section containing at least one first control organized under a first task associated with the selected first user interface tab;

upon receiving an indication of a subsequent selection of an alternate user interface tab, displaying at least one second control organized under an alternate task associated with the alternate user interface tab concurrently with the displayed at least one first control organized under the first task associated with the first selected user interface tab ;

grouping the displayed controls into at least one logical grouping, the at least one logical grouping being associated with a subset of functionalities associated with the selected first user interface tab; and

if the user interface lacks sufficient space for displaying controls of a given logical grouping of controls, collapsing one or more controls from the logical grouping of controls into a single selectable control for accessing the controls grouped under the given logical grouping of controls.

2. The method of claim 1, further comprising, if the display space is available within the user interface, displaying in the user interface a second functionality control section containing at least one second control organized under the alternate task associated with the alternate user interface tab in addition to the displayed first functionality control section.

3. The method of Claim 2, wherein displaying in the user interface the second functionality control section comprises displaying the second functionality control associated with a context of an object being edited in a document.

4. The method of Claim 2, further comprising

upon receiving an indication of a second subsequent selection of a second alternate user interface tab, determining if the display space is available within the user interface to display a third functionality control section containing controls organized

under a second alternate task associated with the second alternate selected user interface tab in addition to displayed controls associated with the first user interface tab and the alternate user interface tab; and

if display space is available within the user interface, displaying in the user interface a third functionality control section containing controls associated with the second alternate user interface tab in addition to the displayed controls associated the first user interface tab and the alternate user interface tab.

5. The method of Claim 2, further comprising :

moving a position of the first functionality control section relative to a position of the second functionality control section for optimizing use of the controls associated with the first functionality control section and the controls associated with the second functionality control section.

6. The method of Claim 2, further comprising changing a display size of at least one of : the first functionality control section and the second functionality control section for fitting the first functionality control section and the second functionality control section in the display space available in the user interface.

7. The method of Claim 6, wherein changing the display size of at least one of the first functionality control section and the second functionality control section for fitting the first functionality control section and the second functionality control section in the display space available in the user interface includes automatically changing the display size of one of : the first functionality control section and the second functionality control section for fitting the first functionality for fitting the first functionality control section and the second functionality control section in the display space available in the user interface after a determination that the display space available in the user interface enables a display of the first functionality control section and the second functionality control section to be one of the following : enlarged and reduced.

8. The method of Claim 7, further comprising reducing at least one of the first functionality control section and the second functionality control section by reducing a display size of at least one groupings of functionality controls contained in the first functionality control section and the second functionality control section.

9. The method of claim 6, wherein changing the display size of at least one of : the first functionality control section and the second functionality control section for fitting the first and second functionality control sections in display space available in the user

interface includes manually changing a display size of the first or second functionality control sections for fitting the first and second functionality control sections in display space available in the user interface after a determination that display space available in the user interface enables a display of one or both of the first and second functionality control sections to be enlarged or that requires a display of one or both of the first and second functionality control sections must be reduced.

10. The method of claim 1, further comprising :

receiving an indication of an editing action on an object in an edited document ;

determining if the display space is available within the user interface to display controls organized under a second task associated with the object in addition to displayed controls associated with the first selected user interface tab; and

if display space is available within the user interface, providing in the user interface at least one second control organized under the second task associated with the object in addition to the displayed controls associated with the first selected user interface tab.

11. The method of claim 1, further comprising :

detecting an object in an edited document ;

determining if the display space is available within the user interface to display controls organized under a second task associated with the object in addition to the displayed controls associated with the first selected user interface tab ; and

if display space is available within the user interface, providing in the user interface at least one second control organized under the second task associated with the object in addition to the displayed controls associated with the first selected user interface tab.

12. The method of claim 1, further comprising rearranging a layout of individual controls grouped in a given logical grouping of controls for reducing a display size of the logical grouping of controls.

13. A computer system for providing functionality from a software application via an improved user interface, the system comprising :

a processor ; and

a memory communicatively coupled to the processor, the memory storing computer-readable instructions that when executed by the processor cause the computing device to :

provide a plurality of functionalities available from the software applications;

organize the plurality of functionalities according to a plurality of tasks that the software application is configured to perform;

provide in the user interface a user interface tab for each of the plurality of tasks;

upon receiving an indication of a selection of a first user interface tab, display in the user interface a first functionality control section a first plurality of controls organized under a first task associated with the selected first user interface tab;

receive an indication of an editing action on an object in an edited document; and

if display space is available within the user interface, display in the user interface a second functionality control section containing a second plurality of controls organized under a second task associated with editing the object in addition to the displayed first functionality control section; and

group at least two of the displayed controls into at least one logical grouping , the at least one logical grouping being associated with a subset of functionalities associated with the selected first user interface tab; and if the user interface lacks sufficient space for displaying controls of a given logical grouping of controls, collapse one or more controls from the logical grouping of controls into a single selectable control for accessing the controls grouped under the given logical grouping of controls.

14. The computer system of claim 13, wherein the instructions when executed by the processor further cause the computing device to :

prior to displaying in the user interface the second functionality control section, determine if the display space is available within the user interface to display the second plurality of controls; and

if display space is available within the user interface, provide in the user interface the second plurality of controls .

15. A computer system for providing functionality from a software application via an improved user interface , the system comprising :

a processor; and

a memory communicatively coupled to the processor, the memory storing computer-readable instructions that when executed by the processor cause the computing device to :

provide a plurality of functionalities available from the software application;

organize the plurality of functionalities according to a plurality of tasks that may be performed with the software application ;

provide in the user interface a user interface tab for each of the plurality of tasks;

upon receiving an indication of a selection of a first user interface tab, display in the user interface a first functionality control section containing a first plurality of controls for selecting a first set of functionalities organized under a first task associated with the selected first user interface tab :

group at least two of the displayed controls into at least one logical grouping, the at least one logical grouping being associated with a subset of functionalities associated with the selected first user interface tab; and

if the user interface lacks sufficient space for displaying controls of a given logical grouping of controls, collapse one or more controls from the logical grouping of controls into a single selectable control for accessing the controls grouped under the given logical grouping of controls.

16. The computer system of claim 15, the memory comprising further instructions that when executed by the processor causes the computing device to :

detect an object in an edited document;

determine if the display space is available within the user interface to display a second plurality of controls for a second set of functionalities organized under a second task associated with the object in addition to the first plurality of controls; and

if the display space is available within the user interface, provide in the user interface a second functionality control section including the a second plurality of controls in addition to the first plurality of controls.

17. The computer system of claim 16, the memory comprising further instructions that when executed by the processor cause the computing device to move a position of the first functionality control section relative to a position of the second functionality control section for optimizing use of the controls associated with the first functionality control section and the controls associated with the second functionality control section.

18. The computer system of claim 16, the memory comprising further instructions that when executed by the processor cause the computing device to : automatically change a display size of one of the following : the first control section and the second functionality control section for fitting the first control section and the second functionality control section in the display space available in the user interface.

19. The computer system of claim 18, the memory comprising further instructions that when executed by the processor cause the computing device to : reduce at least one of the first functionality control section and the second functionality control section by reducing

a display size of groupings of functionality controls contained in the first functionality control section and the second functionality control section.

20. The computer system of claim 16, the memory comprising further instructions that when executed by the processor cause the computing device to : upon receiving an indication of a subsequent selection of an alternate user interface tab, determine if display space is available within the user interface to display a third plurality of controls for a third set of functionalities organized under an alternate task associated with the alternate user interface tab.

21. The computer system of claim 20, the memory comprising further instructions that when executed by the processor cause the computing device to : if the display space is available within the user interface, display in the user interface the third functionality control section containing the third plurality of controls in addition to the displayed first functionality control section.