


36149
 345 Class
 772 Subclass
 ISSUE CLASSIFICATION

6489974


99-2262
 6489974

UTILITY SERIAL NUMBER 586149	PATENT DATE DEC 03 2002	PATENT NUMBER			
SERIAL NUMBER 08/586,149	FILING DATE 01/11/96	CLASS 395 395	SUBCLASS 650 772	GROUP ART UNIT 215 215	EXAMINER Banankhal

APPLICANTS WILLIAM J. JOHNSON, FLOWER MOUND, TX; LARRY M. LACHMAN, IRVING, TX; MICHAEL D. SMITH, IRVING, TX.

CONTINUING DATA***
 VERIFIED THIS APPLN IS A CON OF 08/179,479 01/10/94 *aln*
yes mb

FOREIGN/PCT APPLICATIONS***
 VERIFIED
none mb

FOREIGN FILING LICENSE GRANTED 02/20/96

Foreign priority claimed 35 USC 119 conditions met	<input type="checkbox"/> yes <input type="checkbox"/> no	<input checked="" type="checkbox"/> no <input type="checkbox"/> yes	AS FILED →	STATE OR COUNTRY TX	SHEETS DRWGS. 11	TOTAL CLAIMS 27	INDEP. CLAIMS 2	FILING FEE RECEIVED \$904.00	ATTORNEY'S DOCKET NO. DM-177
---	---	--	---------------	------------------------	---------------------	--------------------	--------------------	---------------------------------	---------------------------------

ADDRESS GEOFFREY A MANTOOTH
 Decker, Jones, McMackin, McClane, Hall & Bates, P.C.
 Burnett Plaza
 801 Cherry Street
 Suite 2000
 Fortworth, TX 76102-6836

TITLE BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN MULTITASKING COMPUTER ENVIRONMENT

U.S. DEPT. of COMMERCE • Patent and Trademark Office-PCT-436L (rev. 7-94)

PARTS OF APPLICATION FILED SEPARATELY		Applications Examiner <i>J. A. Bell</i> 4/16/02	
NOTICE OF ALLOWANCE MAILED <i>Corr. notice 7/19/02</i> 4-16-02	Assistant Examiner	CLAIMS ALLOWED Total Claims: 25 Print Claim: 1	
ISSUE FEE Amount Due: \$1280.00 Date Paid: 10-16-02	MAJID BANANKHAH PRIMARY EXAMINER Primary Examiner	DRAWING Sheets Drwg.: 11 Figs. Drwg.: 14 Print Fig.: FIG. 5	
Label Area		ISSUE BATCH NUMBER	
PREPARED FOR ISSUE			
WARNING: The information disclosed herein may be restricted. Unauthorized disclosure may be prohibited by the United States Code Title 35, Sections 122, 181 and 368. Possession outside the U.S. Patent & Trademark Office is restricted to authorized employees and contractors only.			

Form PTO-436A (Rev. 8/92)

Formal Drawings (11 sheets) set
ISSUE FEE IN FILE
 (FACE)

Subclass
CLASSIFICATION

ABANDONED

UTILITY SERIAL NUMBER 08/179479

PATENT DATE

PATENT NUMBER

SERIAL NUMBER	FILING DATE	CLASS	SUBCLASS	GROUP ART UNIT	EXAMINER
08/179,479	01/10/94	395	650	2308 2316	Kress

APPLICANTS WILLIAM J. JOHNSON, FLOWER MOUND, TX; LARRY M. LACHMAN, IRVING, TX; *Barankhal*
MICHAEL D. SMITH, IRVING, TX.

CONTINUING DATA***
VERIFIED
None

FOREIGN/PCT APPLICATIONS***
VERIFIED
None

FOREIGN FILING LICENSE GRANTED 02/04/94

Foreign priority claimed 35 USC 119 conditions met	<input type="checkbox"/> yes <input type="checkbox"/> no	<input checked="" type="checkbox"/> yes <input checked="" type="checkbox"/> no	AS FILED	STATE OR COUNTRY TX	SHEETS DRWGS. 11	TOTAL CLAIMS 24	INDEP. CLAIMS 2	FILING FEE RECEIVED \$798.00	ATTORNEY'S DOCKET NO. DM177
---	---	---	-----------------	------------------------	---------------------	--------------------	--------------------	---------------------------------	--------------------------------

Verified and Acknowledged Examiner's initials
ADDRESS GEOFFREY A. MANTOOTH
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 WEST SEVENTH, STE. 500
FORT WORTH, TX 76102
*Status of software
sent analysis
sent 2/10/94*

TITLE BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN
MULTITASKING COMPUTER ENVIRONMENT
Status of invention
U.S. DEPT. of COMM.-Pat. & TM Office-PTO-436L (rev. 10-78)

PARTS OF APPLICATION FILED SEPARATELY		Applications Examiner	
NOTICE OF ALLOWANCE MAILED	Assistant Examiner	CLAIMS ALLOWED	
		Total Claims	Print Claim
ISSUE FEE		DRAWING	
Amount Due	Date Paid	Sheets Drwg.	Figs. Drwg. Print Fig.
Label Area		ISSUE BATCH NUMBER	
		PREPARED FOR ISSUE	
<p>WARNING: The information disclosed herein may be restricted. Unauthorized disclosure may be prohibited by the United States Code Title 35, Sections 122, 181 and 368. Possession outside the U.S. Patent & Trademark Office is restricted to authorized employees and contractors only.</p>			

Form PTO-436A (Rev. 8/92)

(FACE)

08/179479

ABANDONED



APPROVED FOR LICENSE

INITIALS JAN 20 94 46

Date Entered or Counted

CONTENTS

Date Received or Mailed 1994

3-4-94	1. Application <input checked="" type="checkbox"/> papers.	
	2. Review Act	1-10-94
2-1	3. Rej B	2-8-95
	4. Amdt a	May 11, 1995
8-4	5. Final Rej 3 mos	8-8-95
	6. Amdt. B N.E.	Dec. 7, 1995
	7. Ext. of time one mo	Dec. 7, 1995
12-15	8. Advisory action	12/15/95
	9. Ex. of time 2nd month	1-10-96 ^{Jan 18}
3-4 A	10. NOTICE OF ABANDONMENT	15 MAR 1996
	11.	
	12.	
	13.	
	14.	
	15.	
	16.	
	17.	
	18.	
	19.	
	20.	
	21.	
	22.	
	23.	
	24.	
	25.	
	26.	
	27.	
	28.	
	29.	
	30.	
	31.	
	32.	

(FRONT)

586149

6/10

PATENT APPLICATION



08586149

APPROVED FOR LICENSE

INITIALS _____

Date Entered or Counted

CONTENTS

Date Received or Mailed

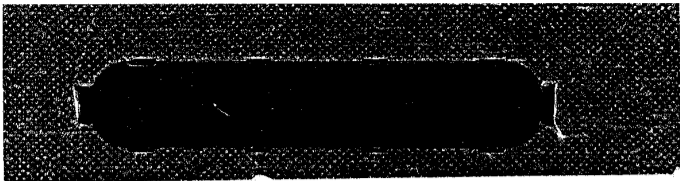
RECEIVED

FEB 23 1996

GROUP 2300

Date Entered or Counted	1. Application _____ papers.	Date Received or Mailed
	11 Pre Amolt C	1-11-96
9/30	12. rej 3 month	10-6-97
3-25-98	13. Ext. of Time 2 mos	3-10-98 c/m 3-6-98
3-25-98	14. Amolt D	3-10-98
6/8	15 Final Rej 3 mos	6/8/98
10-26-98	16. Ext. of Time 1 mo	10/21/98 c/m 10-8-98
10-26-98	17. Notice of Appeal ⁹⁹⁻²²⁶³	10/21/98
12-16-98	18. appeal Brief	12-11-98
3/1	19. EXAMINER'S ANSWER	3-3-99
	20. Decision Board Reversed 3-29-02	
2/6	21. Notice of Allowance	4-16-02 ⁵⁻²²⁻⁰² 7/18/02
10-28-02	22. Change of Address ^{Formal Change of 1/12/02}	5/13/02 10-15-02
	23	
	24	
	25	
	26	
	27	
	28	
	29	
	30	
	31	
	32	
	33	
	34	
	35	
	36	
	37	
	38	
	39	
	40	
	41	

(FRONT)



SEARCHED			
Class	Sub.	Date	Exmr.
395	650	Feb 3, 95	MB.
395	800	Feb 3, 95	MB.
395	159	Feb 3, 95	MB.
364	521	Feb 3, 95	MB.
340	724/721	Feb 3, 95	MB.
395	650	8/2/95	MB
395	800	8/2/95	
364	200	8/4/95	

SEARCH NOTES		
	Date	Exmr.
Apps Word Search	Feb 3, 95	MB.
Electronic Library	Feb 3, 95	MB.
Apps Word Search	Aug 2, 95	MB.

INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.

(RIGHT OUTSIDE)

Staple Issue Slip Here

POSITION	ID NO.	DATE
CLASSIFIER	21	1/28/94
EXAMINER	24	2-3-94
TYPIST	28	2-4-94
VERIFIER	1234	2-4-94
CORPS CORR.		
SPEC. HAND		
FILE MAINT.		
DRAFTING		

INDEX OF CLAIMS


Claim	Date
Final	
Original	
1	Feb 6/95
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	

Claim	Date
Final	
Original	
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	

SYMBOLS

- ✓ Rejected
- = Allowed
- (Through numeral) Canceled
- + Restricted
- N Non-elected
- I Interference
- A Appeal
- O Objected

(LEFT INSIDE)

BAR CODE LABEL		U.S. PATENT APPLICATION			
					
SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT		
08/179,479	01/10/94	395	2308		
APPLICANT	WILLIAM J. JOHNSON, FLOWER MOUND, TX; LARRY M. LACHMAN, IRVING, TX; MICHAEL D. SMITH, IRVING, TX. **CONTINUING DATA***** VERIFIED _____ **FOREIGN/PCT APPLICATIONS***** VERIFIED _____ FOREIGN FILING LICENSE GRANTED 02/04/94				
STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS	FILING FEE RECEIVED	ATTORNEY DOCKET NO.
TX	11	24	2	\$798.00	DM177
ADDRESS	GEOFFREY A. MANTOOTH WOFFORD, FAILS, ZOBAL & MANTOOTH 110 WEST SEVENTH, STE. 500 FORT WORTH, TX 76102				
TITLE	BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN MULTITASKING COMPUTER ENVIRONMENT				
This is to certify that annexed hereto is a true copy from the records of the United States Patent and Trademark Office of the application which is identified above. By authority of the COMMISSIONER OF PATENTS AND TRADEMARKS					
Date	Certifying Officer				

PATENT APPLICATION SERIAL NO. 08/179479

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

DH20346 01/25/94 08179479

09-0453 020 101

798.00CH DM-177

PTO-1556
(5/87)



S P E C I F I C A T I O N

Docket No. DA9-93-027

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN that we, William J. Johnson, Larry M. Lachman and Michael D. Smith of the United States, residing in the State of Texas, have invented new and useful improvements in a

BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY
IN MULTITASKING COMPUTER ENVIRONMENT

of which the following is a specification:

08/586,199

Docket No. DA9-93-027

5 BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY
IN MULTITASKING COMPUTER ENVIRONMENT



10 ABSTRACT

15 Notification of an executing object becoming idle is provided in a multitasking environment. As the object executes, a user can interface with a second object. When the executing object becomes accessible, a buoy icon object is displayed on the computer screen. The buoy icon has the name of the accessible object as well as a pointer line extending from the buoy icon to the accessible object. The buoy icon provides notification that the accessible object execution is complete or is ready to receive a user input. The user can either remove the buoy icon from the screen or select the buoy icon object to focused the accessible object. The newly focused accessible object can then be used. The buoy icon notification can be enabled or disabled on an object-by-object basis.

20

25



08 ~~179479~~ A
586,149

Docket No. 89-93-027

This application is a continuation of 08/179,479 filed 1-10-94, now abandoned.

5 BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY
IN MULTITASKING COMPUTER ENVIRONMENT

Technical Field Of The Invention

10 The present invention relates to methods and apparatuses for notification of user input situations and execution terminations in asynchronously executing tasks in multitasking computer environments.

15 Background Of The Invention

Multitasking computer environments allow users to run or execute plural objects (such as application programs) in an apparent simultaneous manner. For example, a user can execute a spread sheet application, a graphics application and a phone application at the same time.

20 Each object has a user interface displayed to a user on a computer screen. User interfaces for specific applications on a computer system present themselves on a computer screen as a window, a full screen session, an icon or plural combinations thereof. When a full screen session object is selected, the user interface takes up the entire screen and may prompt the user with a command line. When an object is displayed as a window, the window typically takes up only a portion of the screen, so that other objects may be seen.

25 A user input is provided to an object through a focused window or full screen session. Only one object can be focused (or otherwise made accessible to a user)

30

35

2

Docket No. DA9-93-027

at any one time. If an object is not focused, it is not enabled for receiving a user input. Unfocused objects
5 may or may not be obscured from the view of the user by the focused object. For example, if the focused object is represented by a full screen session, then all unfocused objects are obscured from view. If the focused
10 object is represented by a window that takes up only a portion of the screen, then some objects (represented as either windows or icons) are likely to be visible.

The limitation that only one object can be focused for receiving a user input at any given time presents a problem in multitasking computer environments. A user
15 may start an application in one user interface and then go to another user interface to work with another application. The user must poll the first application to determine when the first application either completes or prompts for a user input. Alternatively, the user can
20 simply sit at the screen, waiting for the first application to complete and prompt for a user input. For example, suppose a user begins the formatting of a diskette. To continue operations with the diskette, the user must wait for the formatting to be completed. While
25 formatting, the user begins to use other applications. While using these other applications, a convenient method is needed to indicate the completion of the formatting of the diskette.

In general, a convenient method is needed to
30 indicate to the user that either a specific asynchronously executing task is complete or that a prompt for user input has been provided.

Summary of The Invention

35 It is therefore an object of the present invention to provide a method and apparatus for providing

3

Docket No. DA9-93-027

notification to a user of an object prompt mode, regardless of the activity that the user is engaging in.

5 It is another object of the present invention to provide a method and apparatus for providing notification to a user of termination of an asynchronously executing task.

10 The present invention provides a method and apparatus for providing notification of availability of an object on a multitasking computer. A first object is executed. While the first object is executing, a second object is enabled for receiving a user input on a user interface of the computer. It is then determined when
15 the first object becomes accessible. Becoming accessible implies either the availability for entering input to a task or session or the termination of an asynchronously executing task. When the first object becomes
20 accessible, a notification is provided on the user interface.

25 The present invention provides automatic notification to a user of when an object becomes accessible. Thus, a user can execute a first object on a computer. The user need not wait for the object to
30 finish executing. Instead, the user can turn to other tasks, such as interfacing with the second object. While interfacing with the second object, the user need not return to the first object to check on the progress of its execution. With the present invention, a buoy icon
35 object is automatically displayed on the screen when the first object becomes accessible or otherwise ceases execution.

 In accordance with one aspect of the present invention, the determination of when the first object
35 becomes accessible further includes the determination of when the first object provides a prompt for a user input.

4
3

Docket No. DA9-93-027

5 In another aspect of the present invention, the determination of when the first object becomes accessible further includes the determination of when an asynchronously executing task terminates.

10 In accordance with still another aspect of the present invention, the provision of a notification on the user interface when the first object becomes accessible further includes displaying a buoy icon on a screen. In addition to the buoy icon, a name of the first object can be displayed in proximity to the buoy icon. Also, a line or other visual indicator between the buoy icon and the first object can be displayed on the screen.

15 In accordance with another aspect of the present invention, the computer contains plural objects which include first and second objects. The present invention allows enabling the notification for selected ones of the objects. In still another aspect of the present invention, the notification can be disabled for selected ones of said objects.

In still another aspect of the present invention, the notification can be removed from the user interface after the notification has been displayed.

25 In still another aspect of the present invention, after the notification has been displayed, the notification is selected. Then, the associated object is focused on the user interface, wherein user input can be provided to the newly focused object.

30 In still another aspect of the present invention, the computer includes a third object, and the notification is a first notification. The third object is executed. A determination is made when the third object becomes accessible. A second notification is

Docket No. DA9-93-027

5 displayed on the user interface when the third object becomes accessible. The second notification is removed from the user interface while maintaining the first notification on the user interface. Alternatively, instead of removing the second notification from the user interface, the second notification can be selected, wherein the third object is focused on a user interface while maintaining the first notification on the user interface.

Brief Description Of The Drawings

15 Fig. 1 is a schematic diagram of a data processing system on which the present invention can be practiced.

Fig. 2 is a schematic view of a screen showing a desktop with a buoy icon of the present invention, in accordance with a preferred embodiment, displayed thereon.

Fig. 3 is a schematic view of the screen and desktop of Fig. 2, shown after the buoy icon has been selected, wherein the object linked to the buoy icon has been focused.

25 Fig. 4 is a schematic view of a screen showing a full screen session with a buoy icon displayed thereon.

Fig. 5 is a schematic view of a screen showing a desktop with a plurality of buoy icons displayed thereon.

30 Figs. 6-11 are flow charts showing various methods. Fig. 6 shows the method for enabling buoy icon notification for an object. Fig. 7 shows the method for registering and tracking active objects. Fig. 8 is the method for displaying a buoy icon for an accessible object. Fig. 9 is the method for removing a buoy icon from the screen. Fig. 10 is the method for selecting a buoy icon and providing focus to its associated object.

6
5

Docket No. DA9-93-027

Fig. 11 is the method for disabling buoy icon notification for an object.

5 Figs. 12-14 are schematic views of tables utilized by the present invention. Fig. 12 is a table of those objects currently being executed. Fig. 13 is a table of those objects for which a buoy icon notification has been enabled. Fig. 14 is a table of those objects for which a
10 buoy icon has been displayed.

Description of The Invention

In Fig. 1, there is shown a schematic diagram of a
15 data processing system 11 or computer, upon which the present invention can be practiced. The computer 11 includes a user interface, which has a display screen 17 and a keyboard 19. Other input devices may also be provided, such as a mouse 21, a touch screen and a
20 microphone for voice input. Each computer 11 may also be coupled to a printer 23 or other output device. The computer 11 typically includes a hard disk drive and floppy disk drive storage devices.

The computer 11 also has internal memory in the form
25 of Random Access Memory (RAM). The RAM memory stores resource objects for execution and access by a Central Processing Unit (CPU) located within the computer. One such resource object is the method of the present invention shown by the flow charts. Another such
30 resource object is an operating system. The computer 11 utilizes an operating system that provides multitasking capabilities. One such operating system is OS/2, which is available from IBM. (Both OS/2 and IBM are trademarks of International Business Machines Corporation.)

35 In Fig. 2, there is shown a desktop display 25 on the screen 17. The desktop 25 contains plural icons representing plural objects. For example, there is a

7
6

Docket No. DA9-93-027

file cabinet icon 27, a printer icon 29, a phone icon 31,
etc. None of the objects represented by icons can
5 receive a user input, as they are not focused (or enabled
to receive a user input). A focused object presents
either a window 33 displayed in the foreground of the
desktop (as shown in Fig. 2) or a full screen session 34
10 displayed in full on the screen (as shown in Fig. 4). In
Fig. 2, the focused object 33 is named "OS/2 window" and
is enabled to receive user inputs. Thus, the user can
type in data, use a mouse cursor or use some other input
device to input data or other information to the "OS/2
window" object 33.

15 To illustrate the buoy icon notification of the
present invention, suppose that the user has enabled the
present invention to provide notification of when the
phone object 31 is available for user input. For
example, suppose that the user had earlier been
20 interacting with the phone object 31 before interacting
with the "OS/2 window" object 33. While interacting with
the phone object 31 (through a focused window), the user
reached a step where the phone object executed a task
such as sending a fax transmission, causing the user to
25 wait. Instead of remaining with the phone object while
waiting, the user enabled the present invention and
focused the "OS/2 window" object 33. Thus, the user is
able to accomplish some work with the object 33 while
waiting for the phone object 31 to execute.

30 When the execution of the phone object 31 reaches a
step where a user input is required for further
execution, then the present invention causes a buoy icon
35 to be displayed on the desktop 25. Those skilled in
the art recognize various algorithms may be used to

8
7

Docket No. DA9-93-027

determine a best placement of the buoy icon without
departing from the spirit and scope of the present
5 invention. The preferred embodiment of the buoy icon is
analogous to a maritime buoy used as an aid to ship
navigation. Just as a maritime buoy provides information
that is useful for maritime navigation, the buoy icon 35
10 of the present invention provides information that is
useful for navigation among computer user interfaces.
Those skilled in the art recognize that alternative buoy
representations can be utilized without departing from
the spirit and scope of the present invention. The buoy
icon 35 indicates when a specified object is available
15 for user input. Thus, the user need not wait for an
object to execute or switch back and forth between
focused objects checking on the status of the object in
interest.

The preferred buoy icon 35 has a float 37, a mast 39
20 and a flag 41 so as to resemble a maritime buoy. The
buoy icon 35 specifies the associated object by either
appearing with the object's name (such as "PHONE"), or
appearing with a line (or other visual indicator) 45
connecting the buoy icon 35 to the object 31 or both (as
25 shown in Fig. 2).

The user's attention will generally be drawn to the
buoy icon upon the sudden appearance of the icon 35 on
the desktop 25. However, other means for attracting the
attention of the user could be utilized. For example,
30 the buoy icon can beep (using a speaker in the computer),
pulse to alternate between larger and smaller sizes,
change colors, etc.

Once the buoy icon appears, the user can pursue
several alternatives. First, the user can ignore the
35 buoy icon and continue utilizing the focused object 33.
The appearance of the buoy icon does not change the input
enabled status of the currently focused object.

9

Docket No. DA9-93-027

Second, the user can select the buoy icon, wherein the specified object associated with the buoy icon is immediately focused. This is shown in Fig. 3, wherein the user has selected the buoy icon, and the window 32 for the phone object 31 has focused. Thus, the phone object is enabled to receive user input. The "OS/2 window" object 33 is relegated to the background and is no longer enabled to receive user input. The buoy icon has disappeared from the screen in Fig. 3.

The third option available to the user is that the user can dismiss the buoy icon, causing the icon to disappear, while maintaining the status quo among the objects. Thus, the currently focused object (for example the "OS/2 window" object 33) remains focused, and the phone object 31 remains as an icon in the background.

When a buoy icon is displayed, it generally appears outside of the focused object, unless there is insufficient space available. This is to minimize the possibility of creating a nuisance with the buoy icon popping up in the same area as the user is working. For example, in Fig. 4, a full screen session 34 is shown. The buoy icon 35A is displayed on the full screen session 34, as there is insufficient space for the buoy icon to be displayed off of the full screen session 34. In this situation, the buoy icon 35A is displayed near an edge of the screen 17 with prevention of overlaying displayed matter or with minimal prevention thereof.

There may arise a situation where more than one object produces a buoy icon. In this situation, shown in Fig. 5, there are plural buoy icons 35, 35A, and 35B displayed. A buoy icon is displayed for each object that is ready for a user input. When one buoy icon is selected, the others remain displayed until selected or removed.

10

Docket No. DA9-93-027

Referring now to Figs. 6-11, the flow charts of the present invention will be described. In the flow charts, the following graphical conventions are observed: a rectangle is used to illustrate either a process, function or screen display, and a diamond is used to illustrate a decision. These conventions are well understood by programmers skilled in the art of user interfaces, and the flow charts are sufficient to enable a programmer skilled in the art to write code in any suitable computer programming language, such as PASCAL or C for a computer such as the IBM Personal System / 2 (PS/2) family of computers which supports these languages. (Personal System / 2 is a trademark of International Business Machines Corporation.)

The flow charts will first be described generally, followed by a more specific discussion of the steps. In general, for a buoy icon to appear for an object, the object is enabled for buoy icon notification, and the status of the object changes from active to idle. A user enables the buoy icon notification of the present invention on an object-by-object basis. Examples of idled objects include an object that has completed a specific asynchronously executing task and an object that has provided a prompt for user input. The flow chart of Fig. 6 illustrates the enablement method. When an object is enabled for buoy icon notification, a handle 68 of the object is placed into a Buoy Enabled Table, shown in Fig. 13. When an object executes, the handle 68 of the object is placed into an Active Thread Table, shown in Fig. 12. The flow chart of Fig. 7 illustrates this. When the active object becomes idle, then the method illustrated by the flow chart of Fig. 8 is executed. The method of Fig. 8 determines if the idled object is in both the Buoy Enabled Table of Fig. 13 and the Active Thread Table of Fig. 12. If so, then a buoy icon for the idled object is

Docket No. DA9-93-027

displayed as shown in Fig. 2. The handle 68 for the object is placed into the Buoy Presence Table of Fig. 14.

5 After the buoy icon has been displayed on the screen, the method illustrated by the flow chart of Fig. 9 allows a user to remove the buoy icon from the screen.

10 The method illustrated by the flow chart of Fig. 10 allows a user to focus the object specified by the buoy icon. The method of Fig. 10 utilizes the Buoy Presence Table of Fig. 14.

15 The method illustrated by the flow chart of Fig. 11 allows a user to disable the buoy icon notification for an object.

20 Referring now to Fig. 6, the method for enabling the buoy icon notification for an object will be discussed. The user focuses the object of interest, wherein the object is brought into focus. For example, referring to Fig. 2, the user focuses the phone icon 31 using the mouse cursor, keyboard or other input device. The object may be focused either as a window or as a full screen session. Once the object is focused, then the user executes the method of Fig. 6, starting at step 51. The method is executed, for example, with a keyboard invocation sequence, a voice command, a pull down menu on the object window, etc. After step 51, the method provides an entry F_i 70 for the object in the Buoy Enabled Table of Fig. 13. Each entry F_i 70 of the Buoy Enabled Table has two parameters or fields, namely a handle 68 and an object type 69. The values of the two parameters depend on whether the object is a full screen session or a window. Therefore, in step 53 of Fig. 6, the method determines if the object is a full screen session. This is determined from the title bar text and class (or some other unique attribute) of the object. If the result of step 53 is YES, then in step 55, the Buoy Enabled Table entry handle 68 is set to the reference of

12

Docket No. DA9-93-027

the screen session group associated with the object. The
screen session group is a set of resources (such as
5 peripherals) attached to a session and is a unique
reference for identifying the particular full screen
session. In step 57, the Buoy Enabled Table object type
69 is set to full screen session. The object type may be
a constant which is representative of a full screen
10 session. After step 57, the method proceeds to step 63.

If the result of step 53 is NO, then the object has
a window (or panel) for a user interface, and the method
proceeds to step 59. In step 59, the Buoy Enabled Table
entry handle 68 is set to the title bar text and
15 classification pair of the window. The title bar text
and classification as a pair is a unique identifier of
the particular object window. Various embodiments may
utilize other unique identifying information as
appropriate to the computer system. In step 61, the Buoy
20 Enabled Table entry object type 69 is set to panel (or
window). The object type may be a constant that is
different from the full screen session constant. After
step 61, the method proceeds to step 63.

In step 63, the method determines if the entry is
25 already in the Buoy Enabled Table of Fig. 13. If the
result of step 63 is NO, then in step 65, the entry is
placed into the Buoy Enabled Table. The method then
stops, step 67. If the result of step 63 is YES, then
step 65 is bypassed, and the method proceeds directly to
30 step 67 to stop. Thus, the presence of an entry in the
Buoy Enabled Table (Fig. 13) implies the user requested
buoy icon notification.

Referring now to Fig. 7, the method for registering
an executing object will be discussed. Information on an
35 executing object is placed in the Active Thread Table of
Fig. 12. The Active Thread Table provides a correlation
between buoy icon notification information and executing

Docket No. DA9-93-027

object information. The method of Fig. 7 is executed when an object is executed, step 71. The object is
5 executed when a thread (which is a flow of execution in a multitasking computer) of the object executes as a result of a user input in the user interface for the object. For example, the user could press the ENTER key to cause the object to execute. After step 71, the method
10 provides an entry E_i 72 for the object in the Active Thread Table of Fig. 12. Each entry E_i 72 of the Active Thread Table has the following parameters or fields: a handle 68, an object type 69, a process identification 87 (PID) and a thread identification 89 (TID). The values
15 for the handle and the object type depend on whether the object is a full screen session or a window as heretofore described. Therefore, in step 73 of Fig. 7, the method determines if the object is a full screen session. If the result of step 73 is YES, then the method proceeds to
20 step 75. In step 75, the Active Thread Table entry handle 68 is set to the session screen group associated with the object, much like in step 55 of Fig. 6. Thereafter, in step 77, the Active Thread Table entry object type 69 is set to full screen session, much like
25 in step 57 of Fig. 6. After step 77, the method proceeds to step 83.

If the result of step 73 is NO, then the object being executed has a window for a user interface, and the method proceeds to step 79. In step 79, the active
30 Thread Table entry handle 68 is set to the title bar text and classification pair, like in step 59 of Fig. 6. Thereafter, in step 81, the Active Thread Table entry object type 69 is set to panel, like in step 61 of Fig. 6. After step 81, the method proceeds to step 83.

35 In step 83, the method sets the PID field 87 and TID

Docket No. DA9-93-027

field 89 of the Active Thread Entry. The PID and the TID
are unique handles assigned to an object during the
5 execution of the object by the computer operating system.
The PID and the TID are obtained from the operating
system. Thereafter, in step 85, the method stops.

Referring now to Fig. 8, the method of displaying
the buoy icon will be discussed. The method of Fig. 8
10 executes whenever a thread in the computer system becomes
idle or blocked, step 91. In one type of operating
system (namely OS/2), a thread is blocked when it is no
longer able to execute. A blocked thread is thus idle.
A common example of a thread becoming idle occurs
15 whenever a thread execution ends. The execution of the
thread stops until a user input is provided. Thereafter,
in step 93, the method determines if the idled thread has
an entry in the Active Thread Table of Fig. 12. This is
done by comparing the PID and TID of the idled thread
20 with the PID 87 and TID 89 of each entry E_i 72 in the
Active Thread Table. If no match is found, then the
result of step 93 is NO, and the method proceeds to step
109 to stop. If a match is found, then the result of
step 93 is YES, and the method proceeds to step 95. In
25 step 95, the entry for the idled object is stored in
memory and then removed from the Active Thread Table of
Fig. 12.

Thereafter, in step 97, the method determines if an
entry F_i 70 for the idled object is in the Buoy Enabled
30 Table of Fig. 13. This is done by comparing the handle
68 obtained from the Active Thread Table of Fig. 12 to
the entry handles of the Buoy Enabled Table. If the
result of step 97 is NO, then it is determined that buoy
icon notification for that object has not been enabled,
35 and the method stops, step 109. If the result of step 97
is YES, then it is determined that buoy icon notification
for that object has been enabled, and the method proceeds

Docket No. DA9-93-027

to step 99. In step 99, the method determines if the
idled object is a full screen session. This is
5 determined from the object type 69 found in the Buoy
Enabled Table entry F_i 70. If the object is a full
screen session, then the result of step 99 is YES, and
the method proceeds to step 101.

In step 101, the method determines if the full
10 screen session of the idled object is in focus on the
screen. This is determined by a call to the presentation
manager of the operating system. The presentation
manager returns the handle of the object that is in
focus. If the result of step 101 is YES, then the object
15 full screen session is already focused, and there is no
need to provide a buoy icon notification. This is
because any prompt by the object for user input will be
displayed on the screen, wherein the user can view the
prompt. Thus, if the result of step 101 is YES, the
20 method stops, step 109.

If the result of step 101 is NO, then in step 103,
the buoy icon is drawn or displayed appropriately on the
full screen session. The buoy icon 35 is drawn as shown
in Fig. 2 and can include the name of the object and a
25 "mooring" line 45 connecting the buoy icon to the icon 31
of the object. In addition, the buoy icon is
appropriately drawn so as not to interfere with the
currently focused object 33. Thus, the buoy icon is
typically located around the edges of the screen or
30 outside of the focused window.

Thereafter, in step 105, an entry corresponding to
the newly presented object is placed into the Buoy
Presence Table Z (see Fig. 14). The Buoy Presence Table
Z maintains information on all buoys that are displayed
35 on the screen 17. This information is useful when using
a buoy icon to focus an object. Each entry G_i 74 of the
Buoy Presence Table Z has the following parameters or

16

Docket No. DA9-93-027

fields: the handle 68 of the object, the object type 69
and a buoy handle 110. The buoy handle 110 is an
5 identifier for the particular buoy icon which is uniquely
associated to the corresponding buoy icon.

Thus, the buoy icon becomes an object in and of
itself. The buoy handle 110 contains enough information
to properly identify the respective buoy.

10 Thereafter, in step 107 of Fig. 8, a pointer or
mooring line 45 (see Fig. 2) is drawn on the screen 17
connecting the buoy icon 35 to the associated object icon
31. The line is non-priority, wherein the line will not
be drawn over a focused object. After step 107, the
15 method stops, step 109. Various embodiments may or may
not draw the line or some other visual indicator that
connects the buoy icon to the associated object icon.

Returning to step 99, if the idled object is a
window or panel instead of a full screen session, then
20 the result of step 99 is NO, and the method proceeds to
step 111. In step 111, the method determines if the idle
panel object is in focus. If the result of step 111 is
YES, then the method stops, step 109, for the same reason
as a YES result in step 101. If the result of step 111
25 is NO, then the method proceeds to steps 103 et seq.,
wherein a buoy icon 35 and a connecting line 35 are drawn
on the screen 17.

Once the buoy icon is displayed on the screen, the
user can either remove the icon, select the icon or
30 ignore the icon. Referring to Fig. 9, the method for
removing the icon will be discussed. The user positions
a cursor over the desired buoy icon, step 121, or
otherwise targets the buoy icon. The user may utilize a
mouse cursor, a keyboard cursor or some other input
35 cursor. Thereafter, in step 123, the user enters a
remove sequence with an input device. For example, with
a mouse, the user could press the right mouse button.

Docket No. DA9-93-027

5 With a keyboard, the user could press an escape key or
function key. Thereafter, in step 125, the buoy icon,
any name and the pointer line are removed or deleted from
the desktop on the screen. In step 127, the Buoy
Presence Table entry G_i 74 (see Fig. 14) corresponding to
the removed buoy icon is removed from the Buoy Presence
Table Z. After step 127, the method stops, step 129.

10 Referring to Fig. 10, the method for selecting a
buoy icon and providing focus to its associated object
will now be described. In step 131, the user selects the
desired buoy icon. Selection can be, for example, by
15 placing a mouse cursor on the buoy icon, and then double
clicking a left mouse button. Thereafter, in step 133,
the entry G_i 74 (see Fig. 14) associated with the
selected buoy icon is retrieved from the Buoy Presence
Table Z. Thereafter, in step 135, the computer system
20 focuses the object on the screen using the handle 68 to
determine the specific object. The object type 69 is
obtained from the Buoy Presence Table entry 74. If the
object is a window, then the window is displayed in the
foreground on the screen (as a focused window). If the
25 object is a full screen session, then the appropriate
session is transposed to and the entire screen which is
taken up by the session. Thereafter, in step 137, the
Buoy Presence Table entry G_i 74 for the selected buoy
icon is removed from the Buoy Presence Table Z.
30 Thereafter, in step 139, the buoy icon 35 and the
associated pointer line 45 are removed from the desktop
25 and the screen 17. Steps 135, 137 and 139 can be
performed in any order. Thereafter, the method stops in
step 141. An alternative embodiment may keep the buoy
present, thereby forcing the user to use the method of
35 Fig. 9 to remove it.

The method of Fig. 11 will now be described. The
method of Fig. 11 allows a user to disable buoy icon

Docket No. DA9-93-027

notification for a particular object. The user focuses
the particular object of interest. The user then
5 executes the method of Fig. 11, step 151. This can be
accomplished, with a variety of user invocation methods.
Thereafter, in step 153, the method determines if the
object is a full screen session. If the result of step
153 is YES, then in steps 155 and 157, the handle 68 (see
10 Fig. 13) is set to the session screen group and the
object type 69 is set to full screen session for a Buoy
Enabled Table entry F_i 70, like in steps 55 and 57 of
Fig. 6. After step 157, the method proceeds to step 163.

Returning to step 153, if the object is a window,
15 then the result of step 153 is NO, and the method
proceeds to steps 159 and 161. In steps 159 and 161, the
handle 68 (see Fig. 13) is set to the title bar text and
classification pair of the object, and the object type 69
is set to window for the Buoy Enabled Table entry F_i 70,
20 like in steps 59 and 61 of Fig. 6. After step 161, the
method proceeds to step 163.

In step 163, the method determines if an entry
describing the focused object is in the Buoy Enabled
Table Y of Fig. 13. If the result of step 163 is NO,
25 then the method stops, step 165. If the result of step
163 is YES, then the entry F_i 70 is removed from the Buoy
Enabled Table Y, step 167.

Thereafter, in step 169, the method determines if
there is a buoy icon entry G_i 74 present in the Buoy
30 Presence Table Y of Fig. 14. If the result of step 169
is NO, then the method stops, step 165. However, if the
result of step 169 is YES, then the entry G_i 74 is
removed from the Buoy Presence Table Z, step 171.
Thereafter, in step 173, the buoy icon 35 and pointer
35 line 45 are removed from the desktop 25. The method then
stops, step 165. Thus, if the user disables the buoy
icon notification for an object while the buoy icon is

Docket No. DA9-93-027

displayed for that object, then the buoy icon will disappear from view on the desktop.

5 Although the present invention has been described as allowing a user to enable and disable buoy icon notification on an object-by-object basis, the present invention could also provide that the buoy icon notification is enabled by the system for all objects, or
10 for a selected set of objects, wherein the need for a Buoy Enabled Table would be eliminated.

 Although the present invention has been described as providing a buoy icon without interfering with the currently focused object, the buoy icon could be
15 displayed with input focus. Thus, when the buoy icon is displayed, the buoy icon is focused. The object that was focused before the buoy icon was displayed is relegated to background status. Further user inputs would be provided to the buoy icon and not to the previously
20 focused object.

 Although the present invention has been described as displaying a buoy icon for notification, other designs could be displayed or provided for notification purposes.

25 The foregoing disclosure and the showings made in the drawings are merely illustrative of the principles of this invention and are not to be interpreted in a limiting sense.

Docket No. DA9-93-027

BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN
MULTITASKING COMPUTER ENVIRONMENT

CLAIMS

What We Claim Is:

Sub
c/
1
2

1. A method for providing notification of availability of an object on a multitasking computer, comprising the steps of:
 - a) executing a first object;
 - b) while said first object is executing, enabling a second object on a user interface of said computer to support user interaction;
 - c) determining when said first object becomes accessible; and
 - d) providing a notification on said user interface when said first object becomes accessible.

Docket No. DA9-93-027

- 1 2. The method of claim 1 wherein said step of
2 determining when said first object becomes
3 accessible further comprises the step of
4 determining when said first object provides a
5 prompt for a user input.
- 1 3. The method of claim 1 wherein said step of
2 providing a notification on said user interface
3 when said first object becomes accessible further
4 comprises the step of displaying a buoy icon on a
5 screen.
- 1 4. The method of claim 3 wherein said step of
2 providing a notification on said user interface
3 when said first object becomes accessible further
4 comprises the step of displaying a name of said
5 first object in proximity to said buoy icon.
- 1 5. The method of claim 3 wherein said step of
2 providing a notification on said user interface
3 when said first object becomes accessible further
4 comprises the step of displaying a line between
5 said buoy icon and said first object on said
6 screen.

Docket No. DA9-93-027

1 6. The method of claim 1 wherein said computer
2 contains plural objects which comprise said first
3 object and said second object, said method further
4 comprising the step of enabling said notification
5 for selected ones of said objects.

1 7. The method of claim 1 wherein said computer
2 contains plural objects which comprise said first
3 object and said second object, said method further
4 comprising the step of disabling said notification
5 for selected ones of said objects.

a 1 8. The method of claim 1 further comprising the step
2 of removing said notification ^{icon} from said user
3 interface.

Sub 9. The method of claim 1 further comprising the steps
2 of:
3 a) selecting said notification; and
4 b) focusing said first object on said user
5 interface, said step of focusing said first object
6 on said user interface further comprising the step
7 of enabling said first object for receiving a user
8 input.

1 ~~10. The method of claim 1 wherein said step of~~
2 ~~providing a notification on said user interface~~
3 ~~when said first object becomes accessible further~~
4 ~~comprises the step of providing a notification~~
5 ~~object on said user interface.~~

Docket No. DA9-93-027

1 11. The method of claim 1 wherein said computer
2 comprises a third object and said notification is
3 a first notification, further comprising the steps
4 of:
5 a) executing said third object;
6 b) determining when said third object
7 becomes accessible;
8 c) displaying on said user interface a
9 second notification when said third object becomes
10 accessible; and
11 d) removing said second notification from
12 said user interface while maintaining said first
13 notification on said user interface.

12
1 12. The method of claim 1 wherein said computer
2 comprises a third object and said notification is
3 a first notification, further comprising the steps
4 of:
5 a) executing said third object;
6 b) determining when said third object
7 becomes accessible;
8 c) displaying on said user interface a
9 second notification when said third object becomes
10 accessible;
11 d) selecting said second notification; and
12 e) focusing said third object on said user
13 interface while maintaining said first
14 notification on said user interface.

Docket No. DA9-93-027

*Sub
C2*

- 1 13. An apparatus for providing notification of
2 availability of an object on a multitasking
3 computer, comprising:
4 a) means for executing a first object;
5 b) means for enabling a second object on a
6 user interface of said computer to support user
7 interaction while said first object is executing;
8 c) means for determining when said first
9 object becomes accessible; and
10 d) means for providing a notification on
11 said user interface when said first object becomes
12 accessible.

Docket No. DA9-93-027

1 14. The apparatus of claim 13 wherein said means for
2 determining when said first object becomes
3 accessible further comprises means for determining
4 when said first object provides a prompt for a
5 user input.

1 15. The apparatus of claim 13 wherein said means for
2 providing a notification on said user interface
3 when said first object becomes accessible further
4 comprises means for displaying a buoy icon on said
5 screen.

1 16. The apparatus of claim 15 wherein said means for
2 providing a notification on said user interface
3 when said first object becomes accessible further
4 comprises means for displaying a name of said
5 first object in proximity to said buoy icon.

1 17. The apparatus of claim 15 wherein said means for
2 providing a notification on said user interface
3 when said first object becomes accessible further
4 comprises means for displaying a line between said
5 buoy icon and said first object on said screen.

Docket No. DA9-93-027

1 ¹⁷ 18. The apparatus of claim ¹² 13 wherein said computer
2 contains plural objects which comprise said first
3 object and said second object, said apparatus
4 further comprising means for enabling said
5 notification for selected ones of said objects.

1 ¹⁸ 19. The apparatus of claim ¹² 13 wherein said computer
2 contains plural objects which comprise said first
3 object and said second object, said apparatus
4 further comprising means for disabling said
5 notification for selected ones of said objects.

1 ¹⁹ 20. The apparatus of claim ¹² 13 further comprising means
2 for removing said notification ^{icon} from said user
3 interface.

Sub
a3
1 21. The apparatus of claim 13 further comprising:
2 a) means for selecting said notification;
3 and
4 b) means for focusing ^{(said first object on}
5 said user interface, said means for focusing said
6 first object on said user interface further
7 comprising means for enabling said first object
8 for receiving a user input.

1 ~~22. The apparatus of claim 13 wherein said means for~~
2 ~~providing a notification on said user interface~~
3 ~~when said first object becomes accessible further~~
4 ~~comprises means for providing a notification~~
5 ~~object on said user interface.~~

Docket No. DA9-93-027

03

1 23. The apparatus of claim 13 wherein said computer
2 comprises a third object and said notification is
3 a first notification, further comprising:
4 a) means for executing said third object;
5 b) means for determining when said third
6 object becomes accessible;
7 c) means for displaying on said user
8 interface a second notification when said third
9 object becomes accessible; and
10 d) means for removing said second
11 notification from said user interface while
12 maintaining said first notification on said user
13 interface.

1 24. The apparatus of claim 13 wherein said computer
2 comprises a third object and said notification is
3 a first notification, further comprising:
4 a) means for executing said third object;
5 b) means for determining when said third
6 object becomes accessible;
7 c) means for displaying on said user
8 interface a second notification when said third
9 object becomes accessible;
10 d) means for selecting said second
11 notification; and
12 e) means for focusing said third object on
13 said user interface while maintaining said first
14 notification on said user interface.

*add a 7
add c³*

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

DOCKET NO. DA9-93-027;DM-177

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN MULTITASKING COMPUTER ENVIRONMENT

[X] is attached hereto.

[] was filed on _____ as

Application Serial No. _____

and was amended on _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Table with 3 columns: Prior Foreign Application(s), (Number), (Country), (Day/Month/Year Filed) and Priority Claimed (Yes/No). Rows contain 'N/A'.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Table with 3 columns: (Application Serial No.), (Filing Date), (Status) (patented, pending, abandoned). Rows contain 'N/A'.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

- Geoffrey A. Mantooth, Reg. No. 32,042
Arthur F. Zobal, Reg. No. 20,616
John E. Hoel, Reg. No. 26,279
David A. Mims, Jr., Reg. No. 32,708
A. Bruce Clay, Reg. No. 32,121
Jonathan E. Jobe, Reg. No. 28,429
William Ellis, Reg. No. 26,874
Prentiss W. Johnson, Reg. No. 33,123

Send Correspondence to: Geoffrey A. Mantooth, WOFFORD, FAILS, ZOBAL & MANTOOTH 110 West Seventh, Suite 500, Fort Worth, Texas 76102

Direct Telephone Calls to: (name and telephone number) Geoffrey A. Mantooth, (817) 332-1233

Form for inventor information including full name, signature, date, residence, citizenship, and post office address for William J. Johnson and Larry M. Lachman.

(Supply similar information and signature for third and subsequent joint inventors.)

(Continued on Page 2)

DECLARATION AND POWER OF

ATTORNEY FOR PATENT APPLICATION

DOCKET NO.
DA9-93-027; DM-177

I hereby declare that all statements made on pages 1 and 2 herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of third joint-inventor, if any	
Michael D. Smith <i>3-00</i>	
Third inventor's signature <i>Michael D. Smith</i>	Date 01-03-94
Residence 9006 Cumberland Drive, Irving, Texas 75063 TX	
Citizenship U.S.A.	
Post Office Address same as above	
Full name of fourth joint-inventor, if any	
Fourth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	
Full name of fifth joint-inventor, if any	
Fifth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	
Full name of sixth joint-inventor, if any	
Sixth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	
Full name of seventh joint-inventor, if any	
Inventor's signature	Date
Residence	
Citizenship	
Post Office Address	
Full name of eighth joint-inventor, if any	
Eighth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	

08/586,149
179479

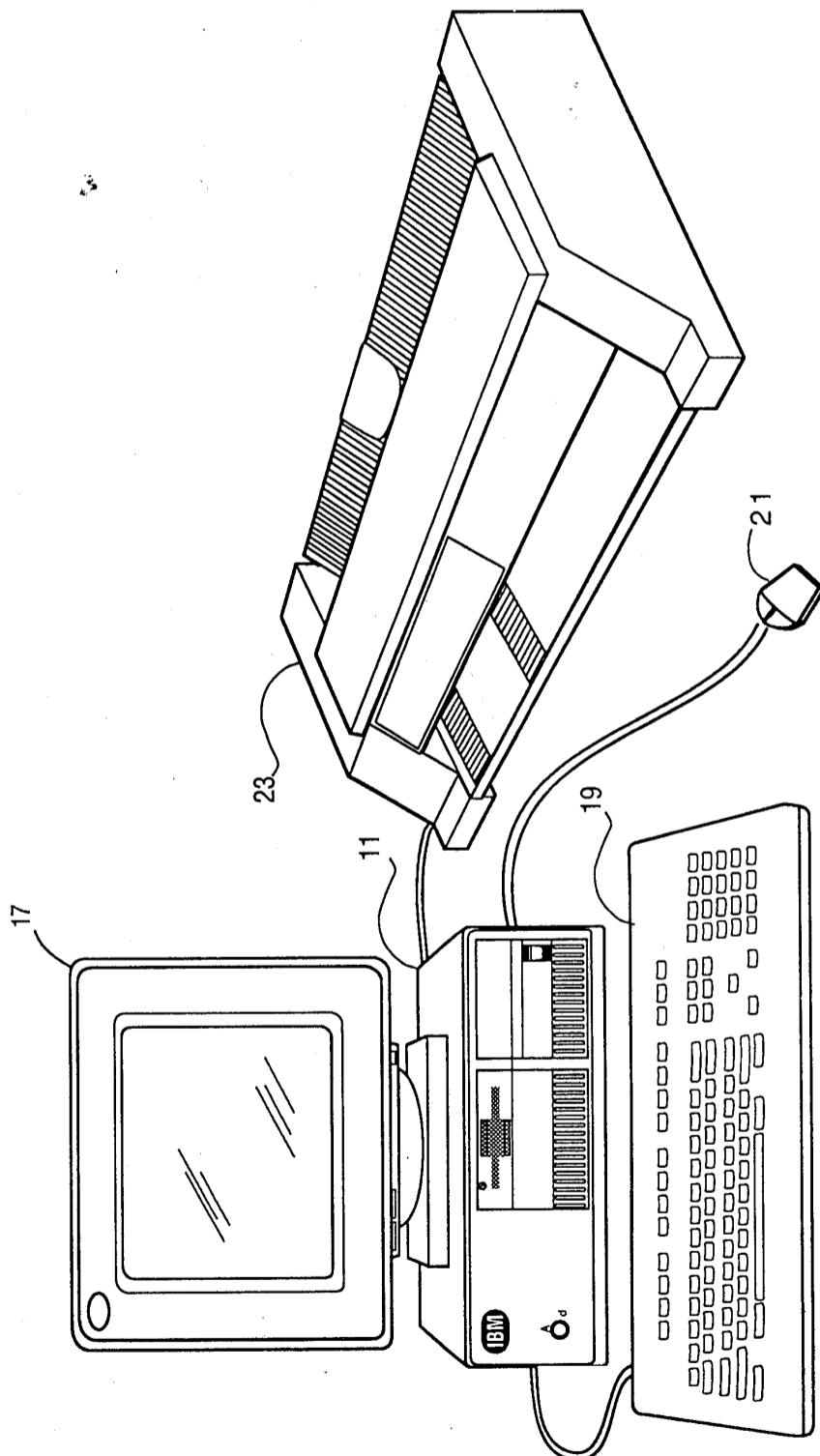


Fig. 1

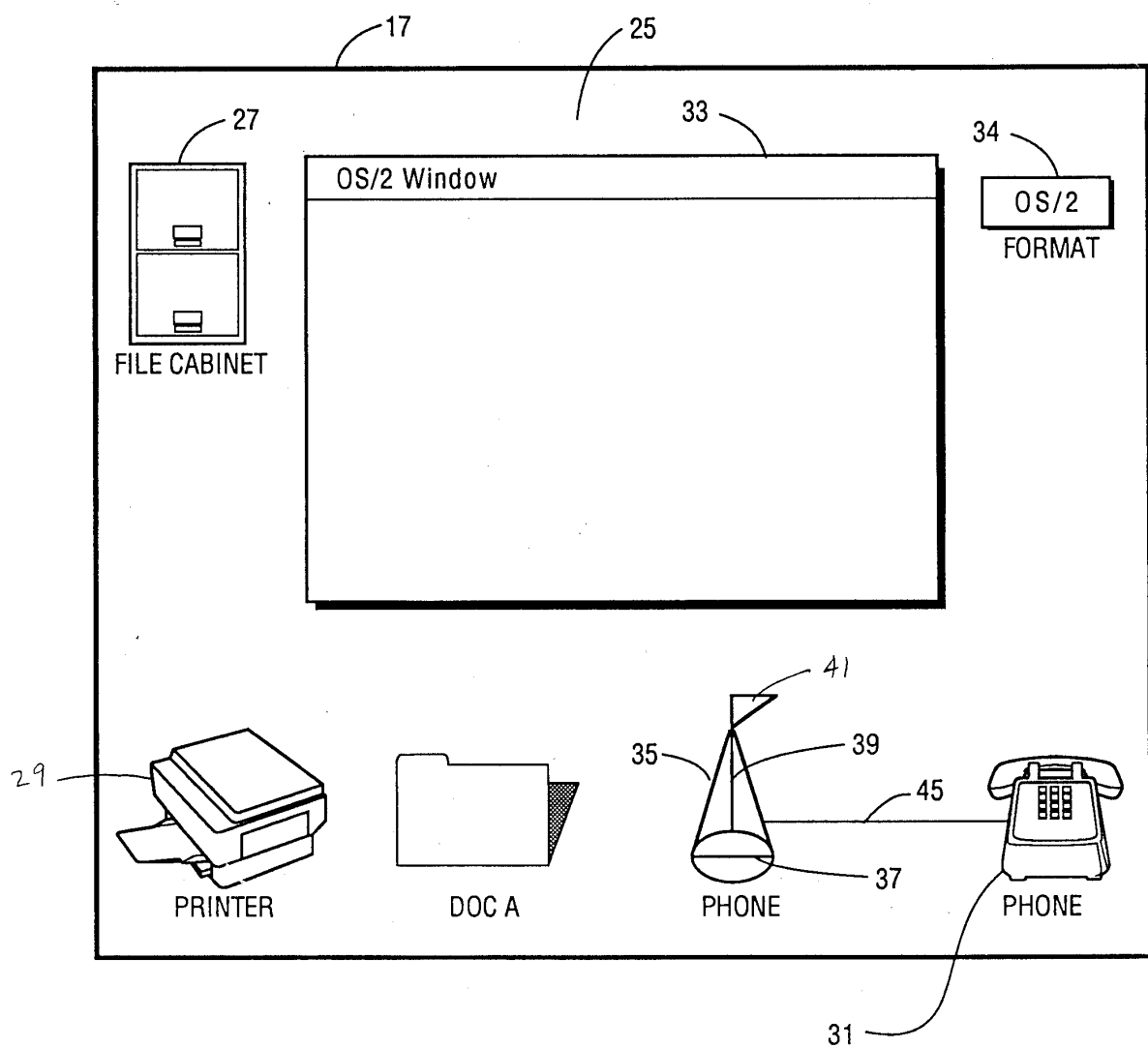


FIG 2

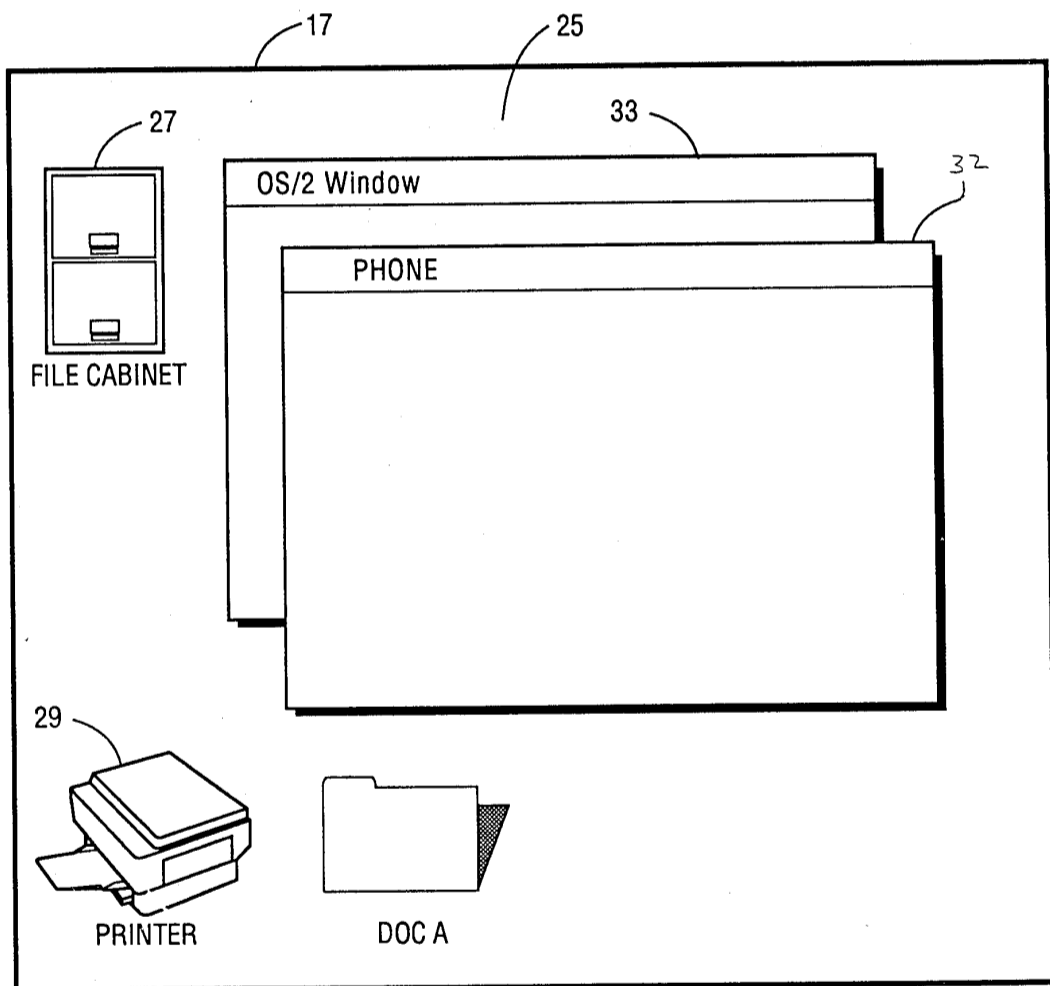


FIG. 3

08/179479

386,149

17

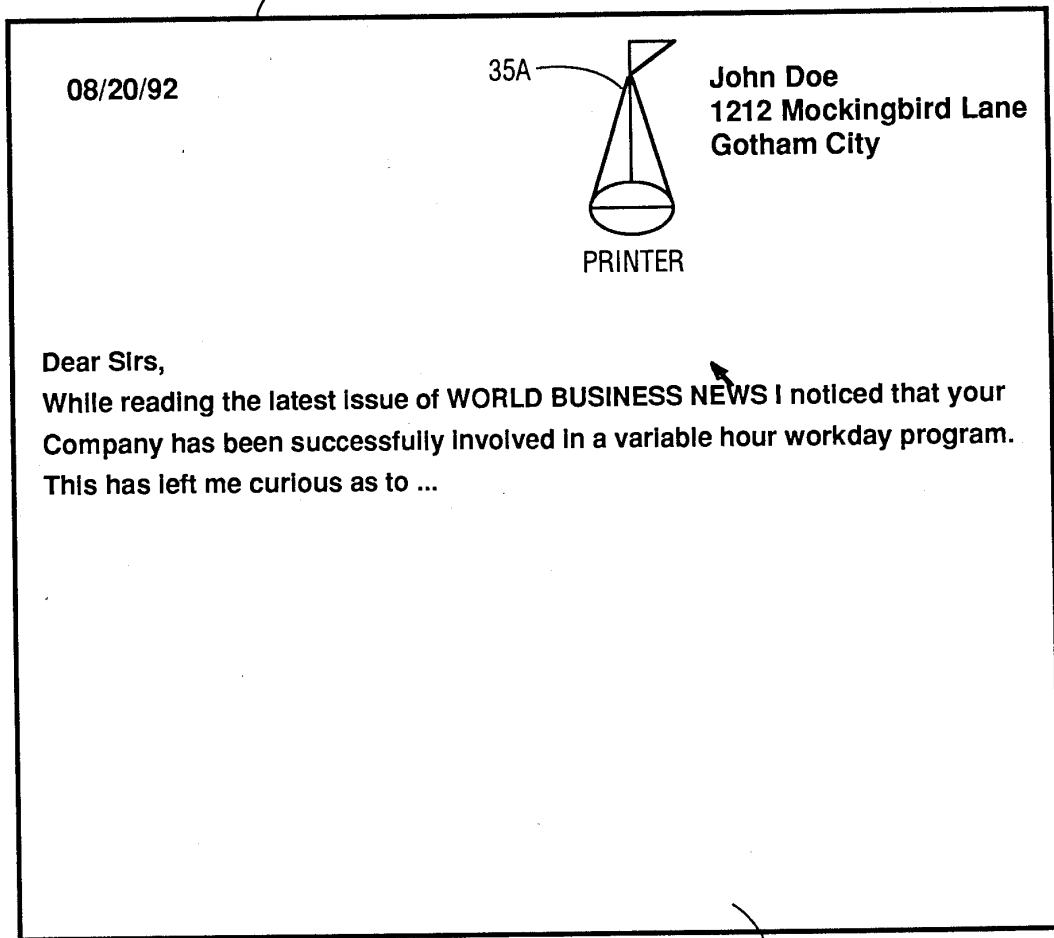


FIG. 4

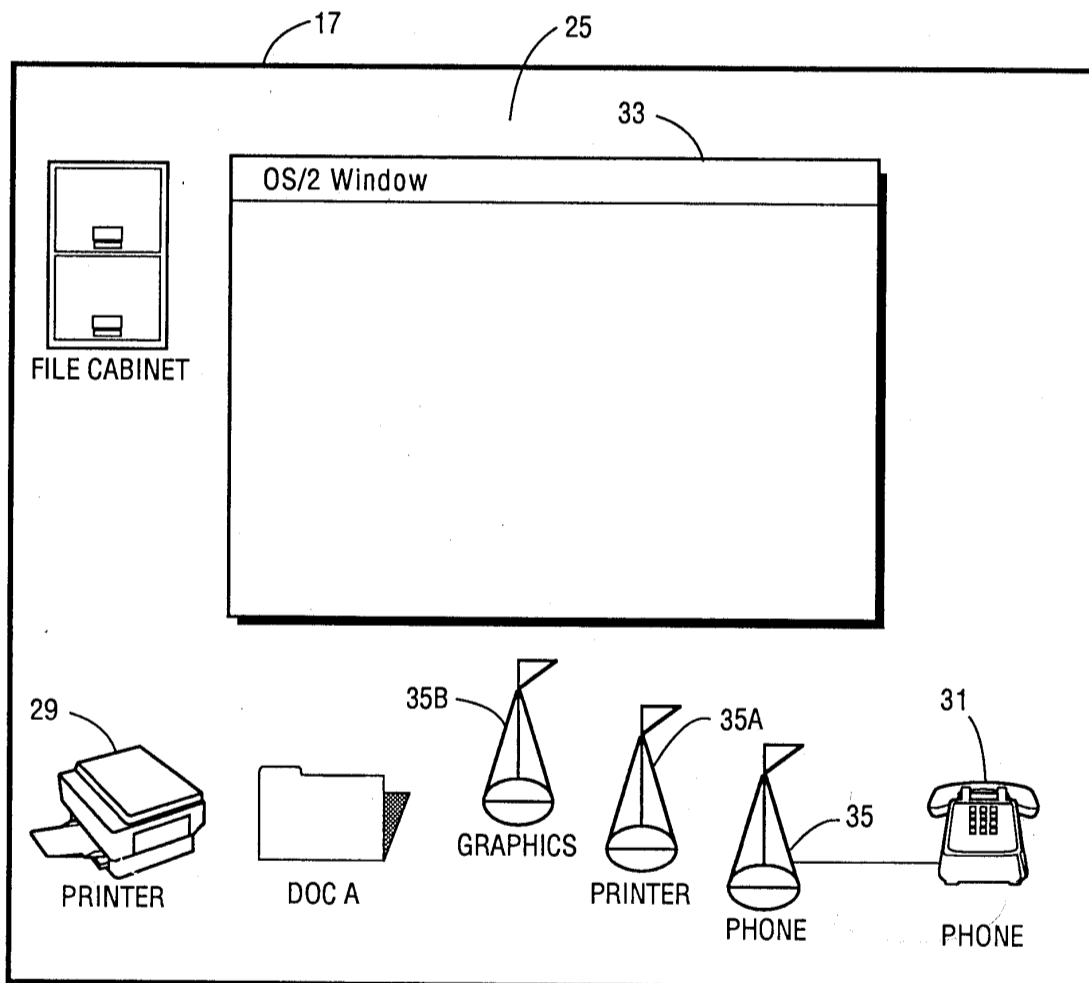


FIG. 5

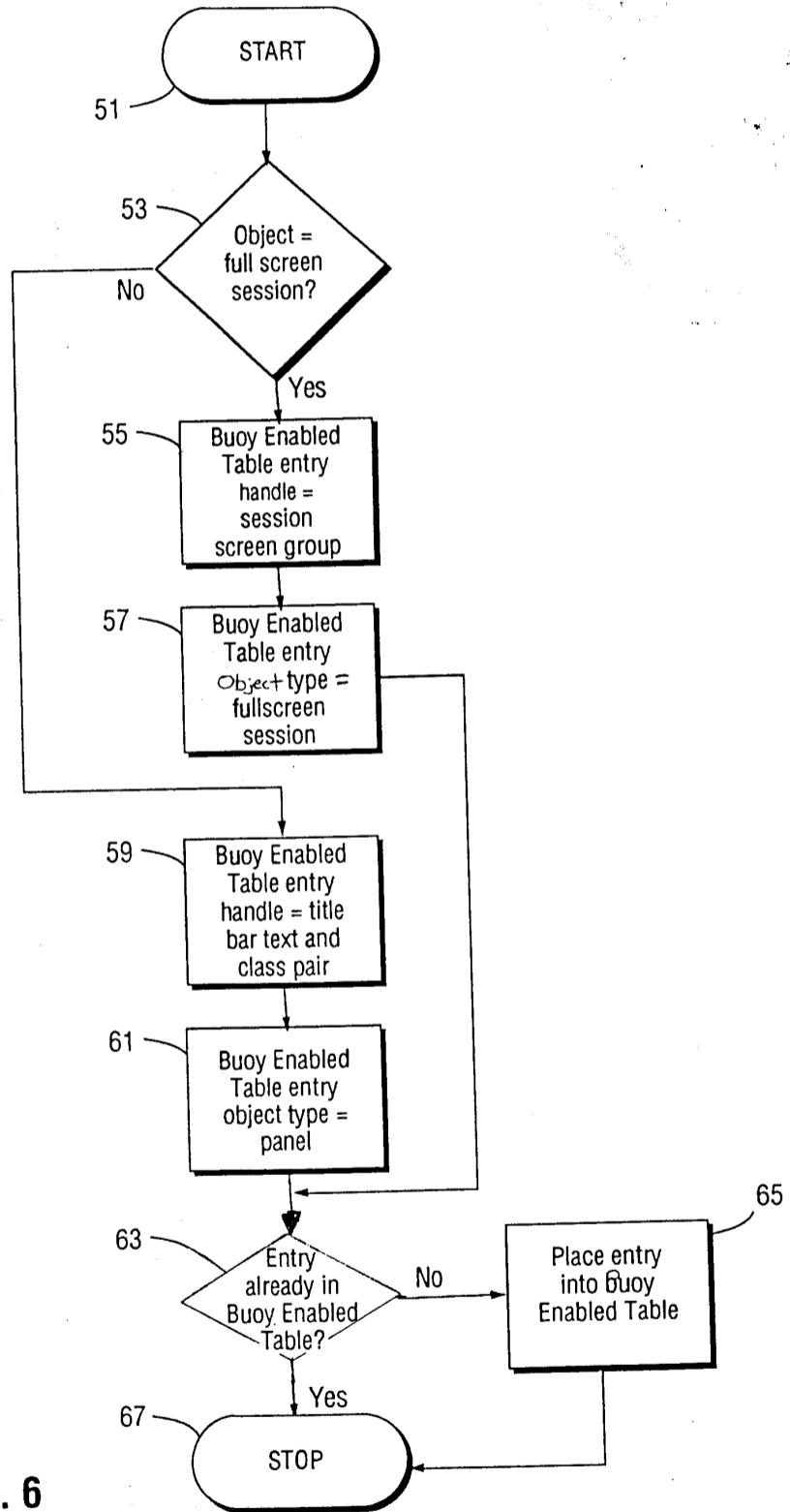


FIG. 6

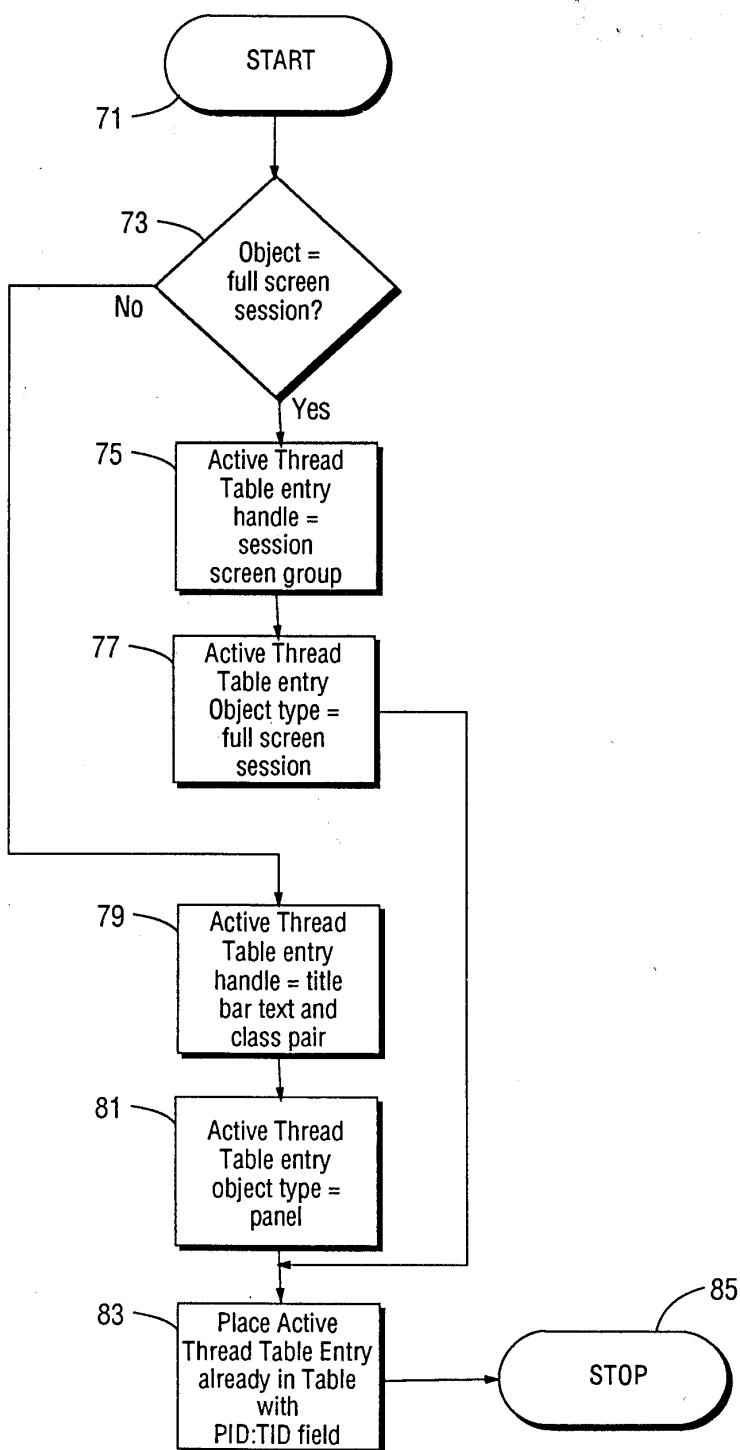


FIG. 7

08/179479
586,149

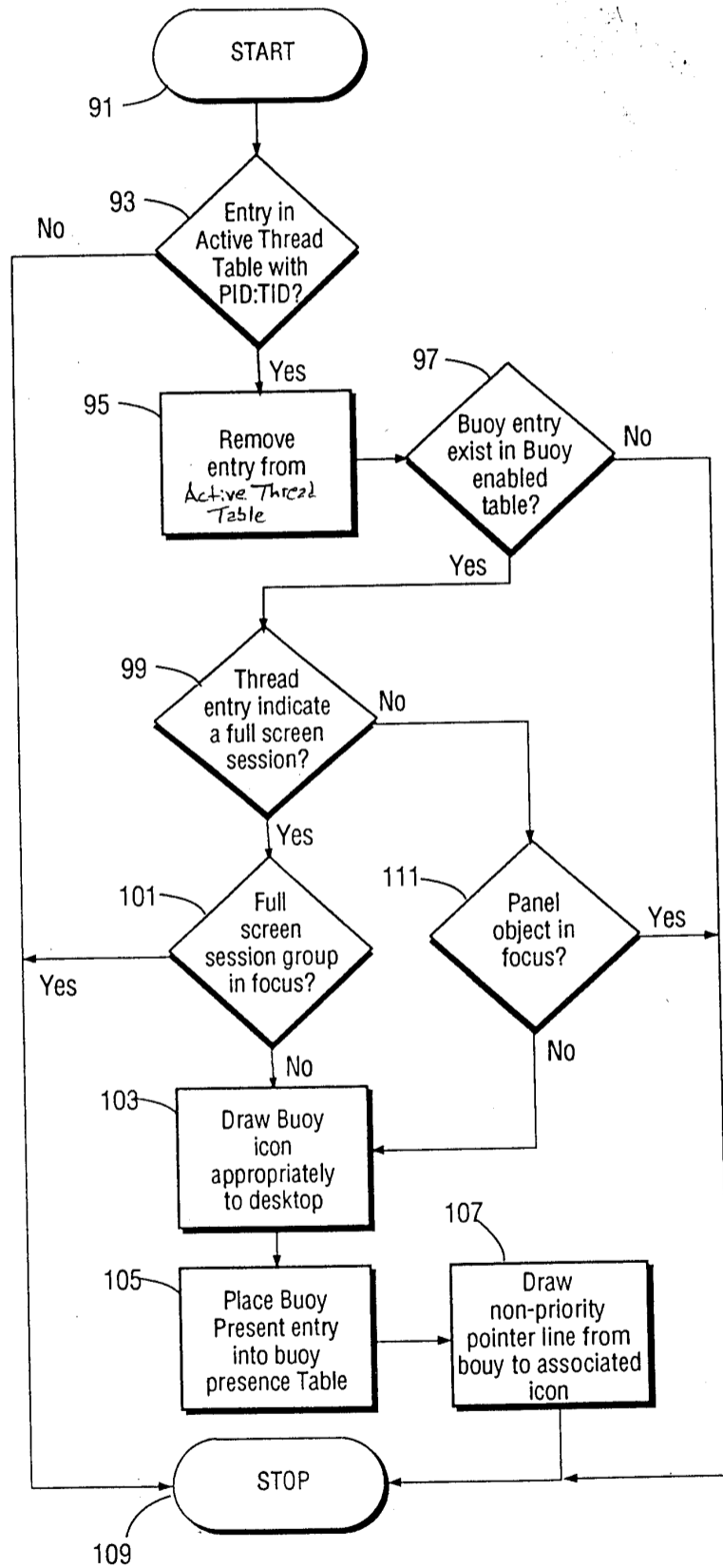


FIG. 8

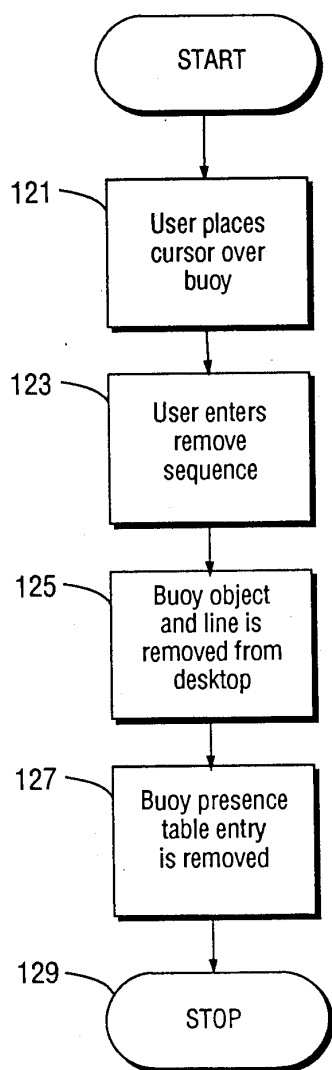


FIG. 9

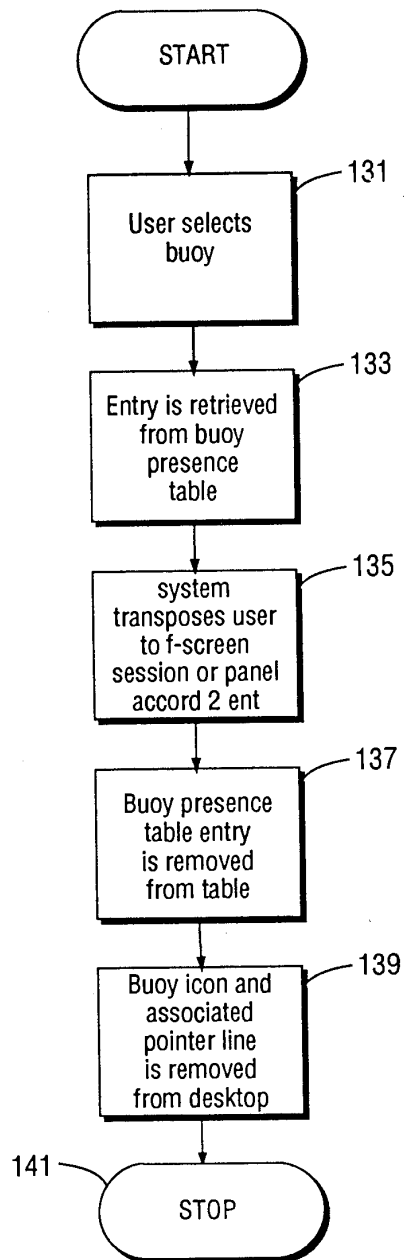


FIG. 10

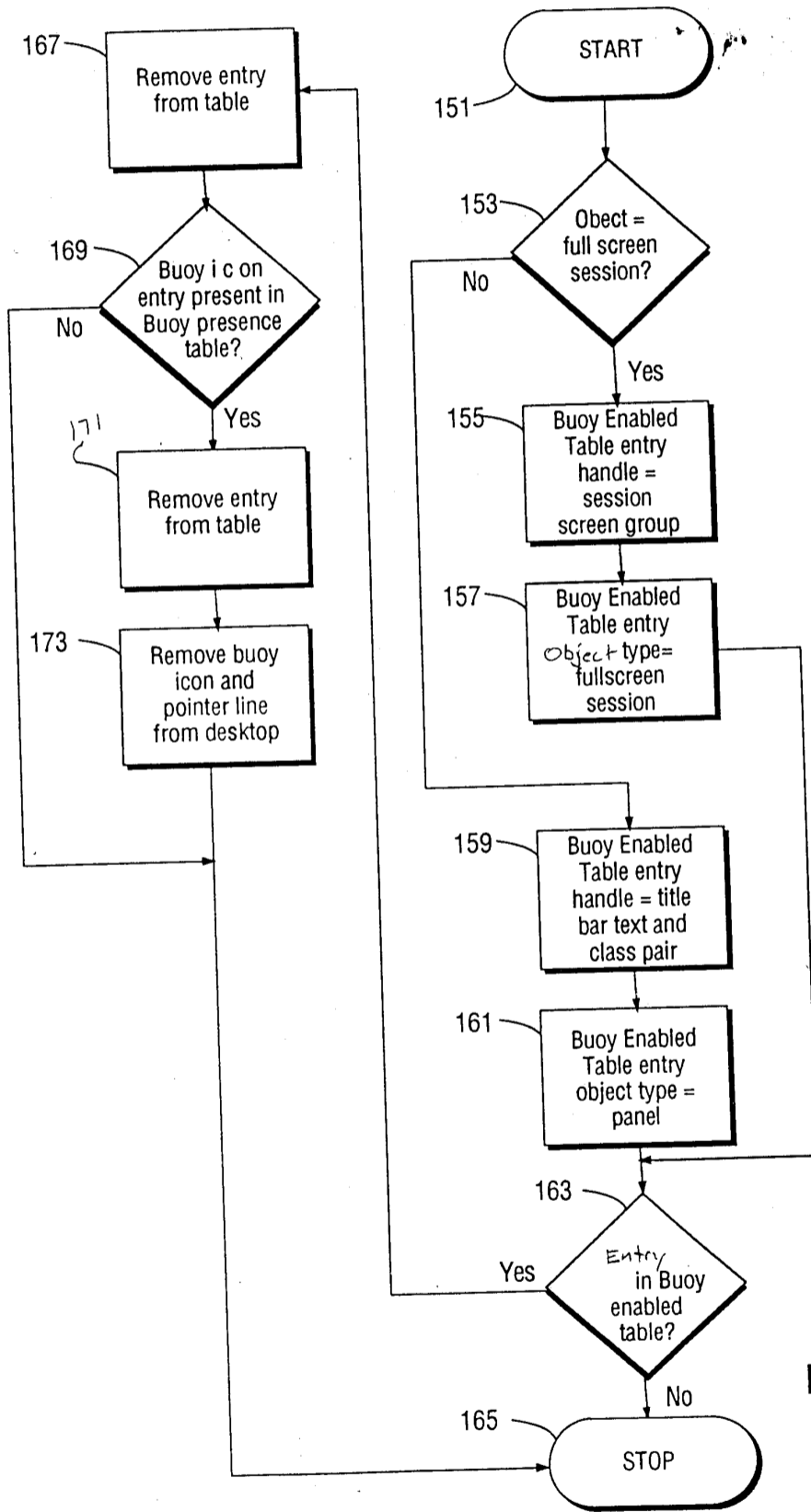


FIG. 11

08/179479
S&B/149

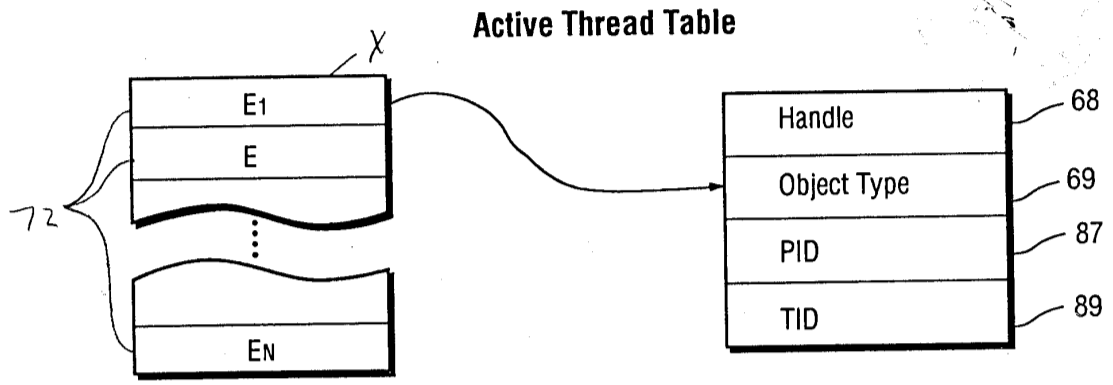


FIG. 12

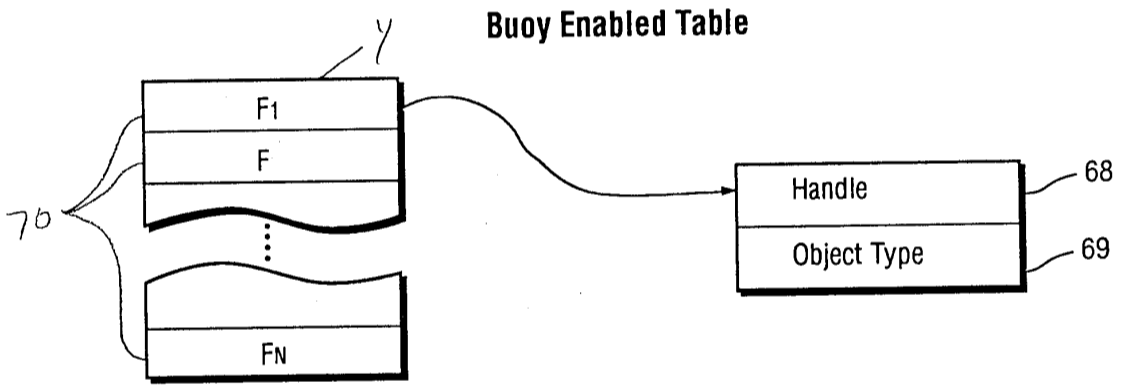


FIG. 13

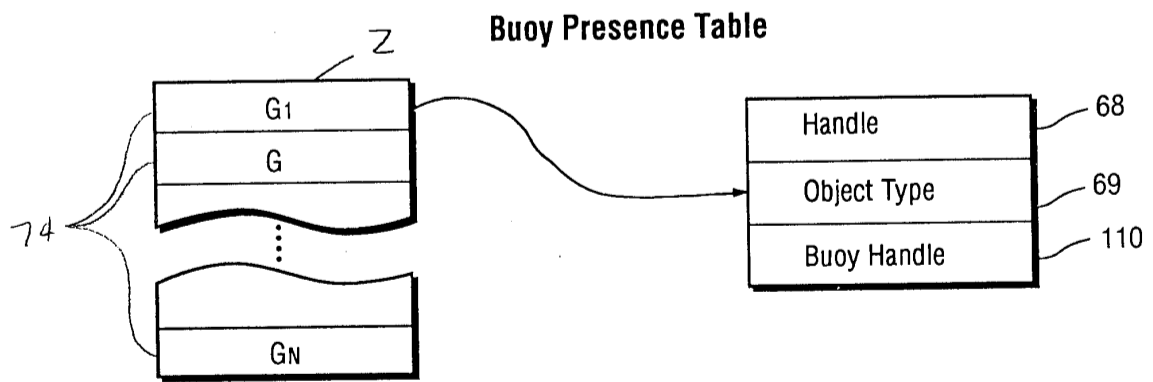


FIG. 14

08/179479
586149

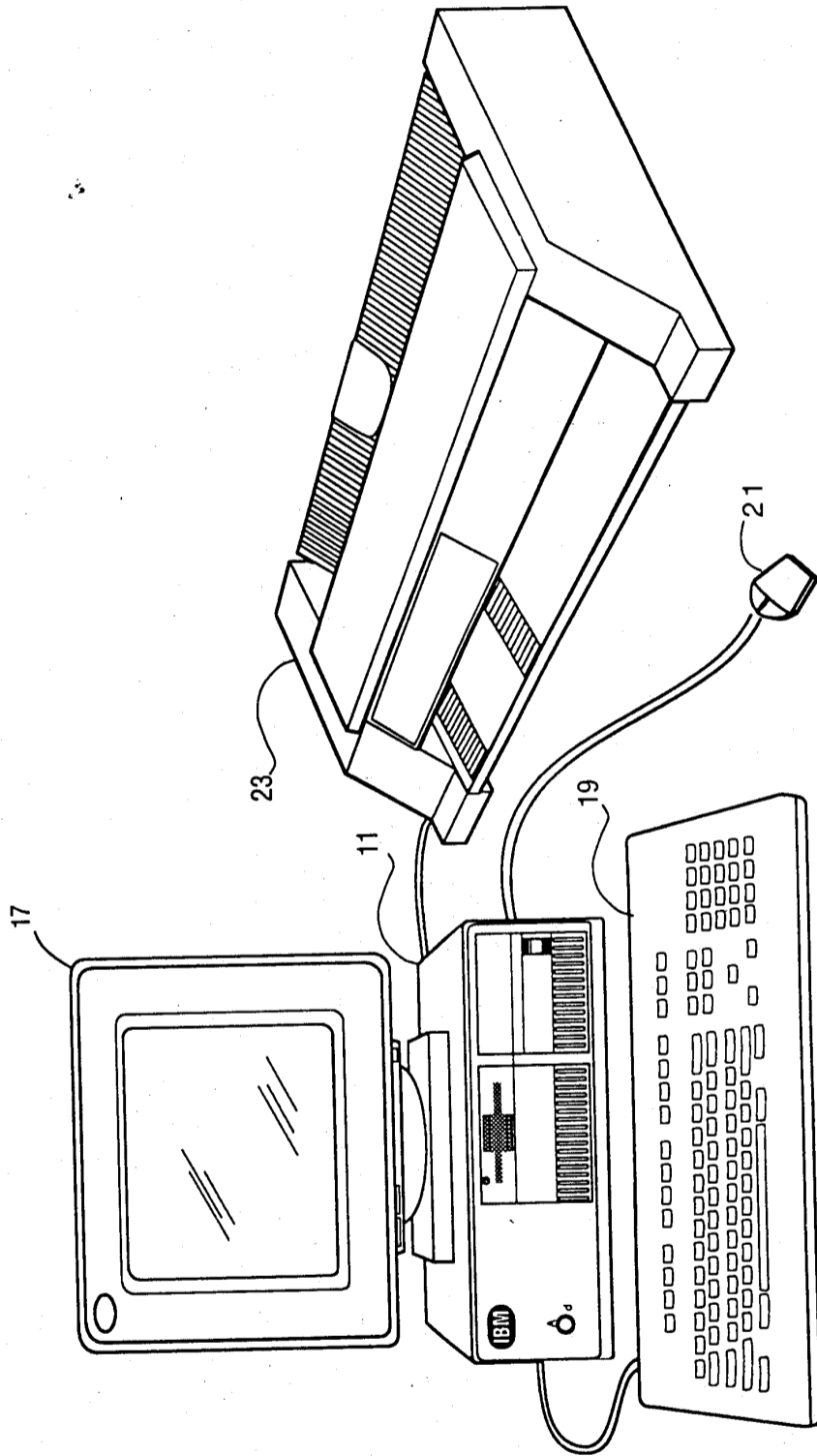


Fig. 1

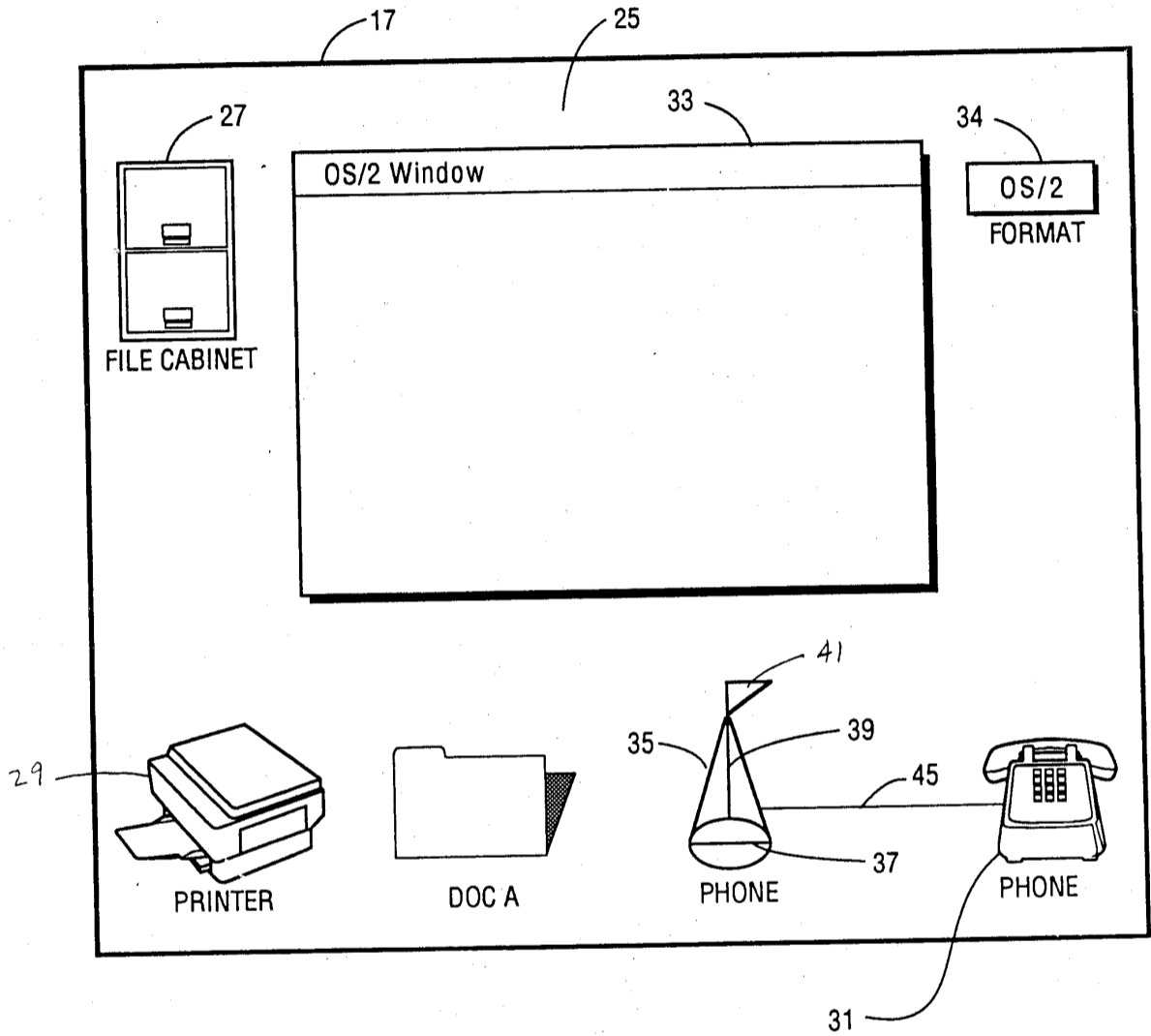


FIG 2

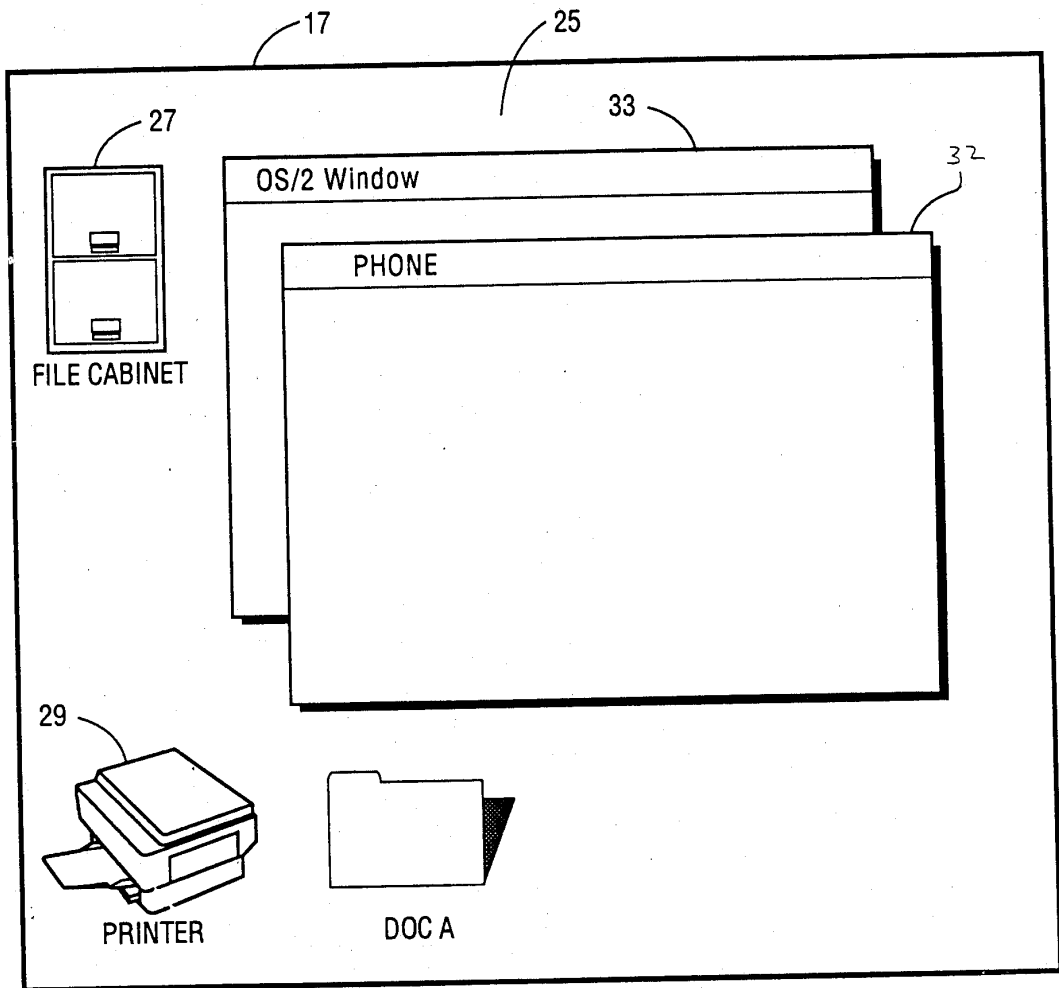


FIG. 3

PRINT OF DRAWINGS
AS ORIGINALLY FILED

SHEET 4 OF 11
JOHNSON ET AL.
DA9-93-027

08/179479
586,149

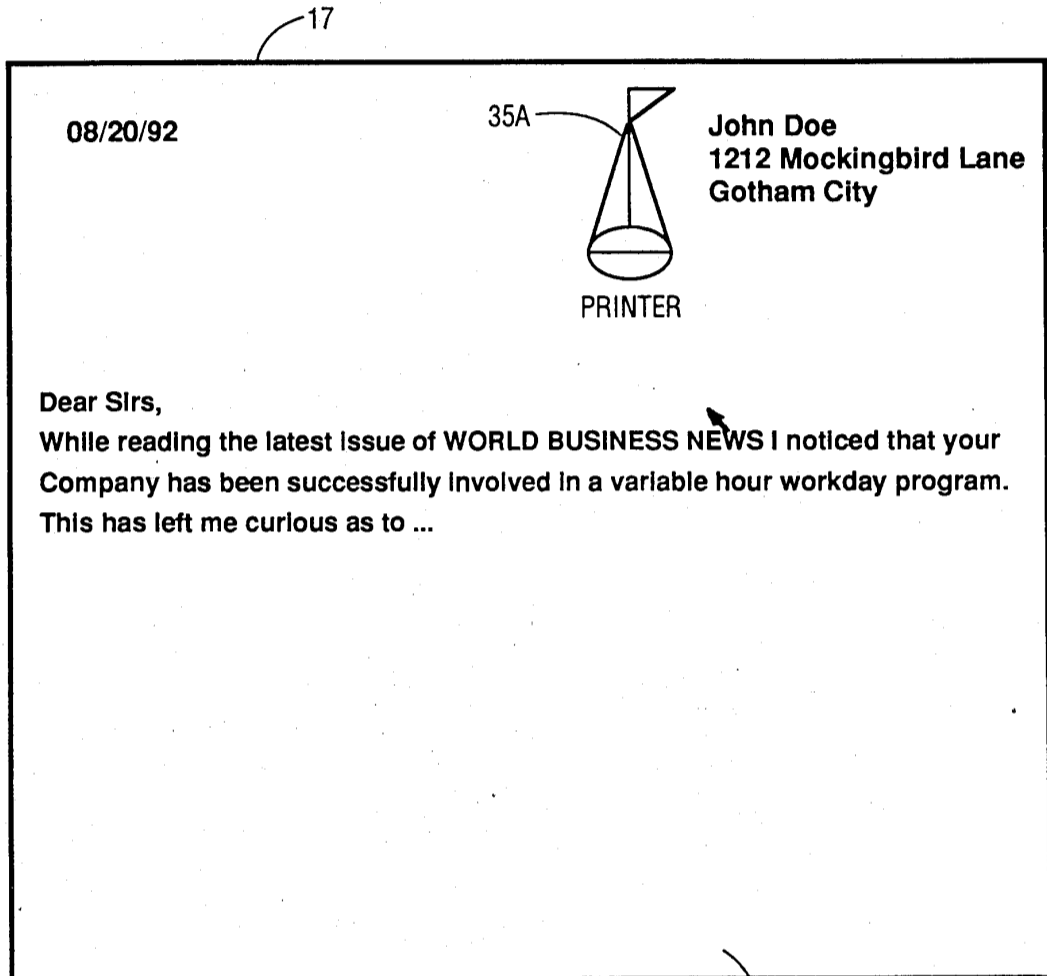


FIG. 4

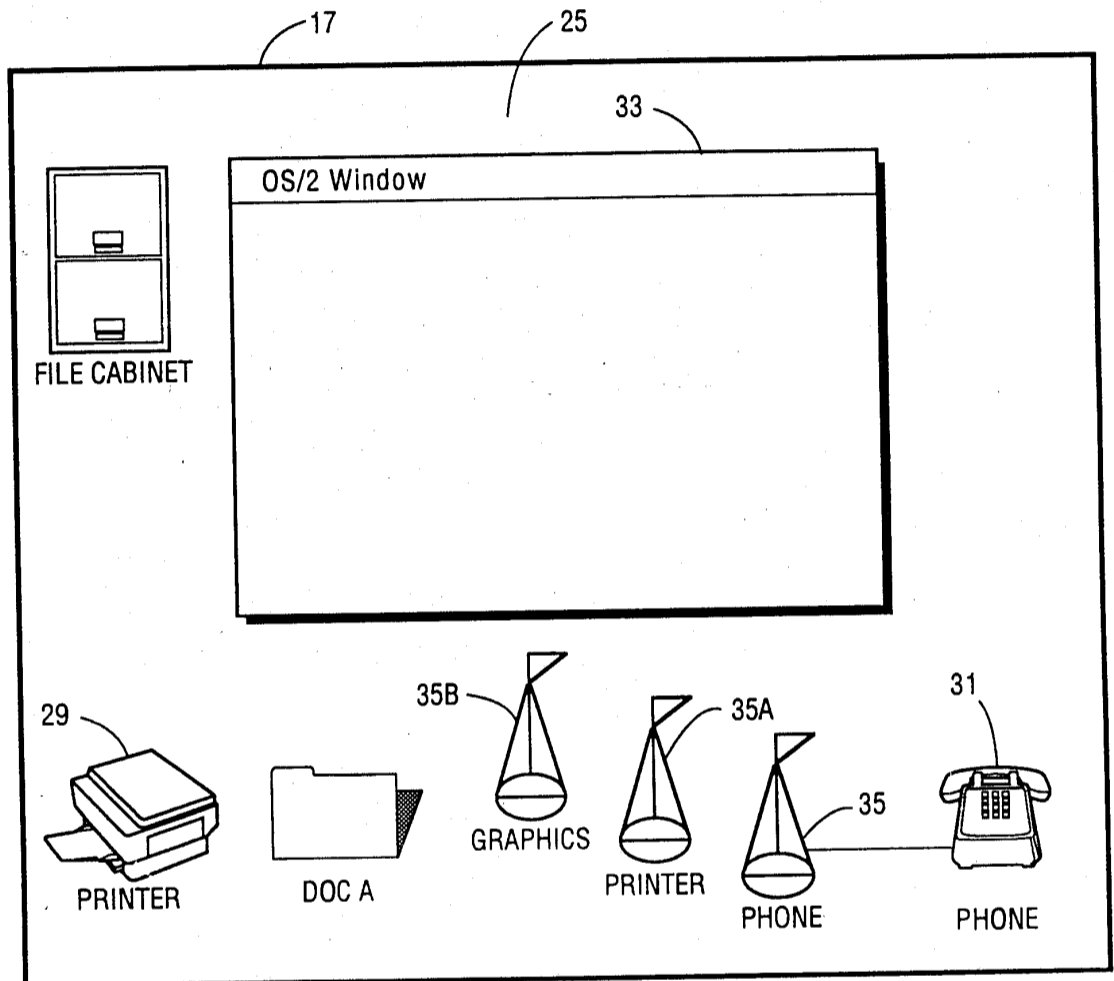


FIG. 5

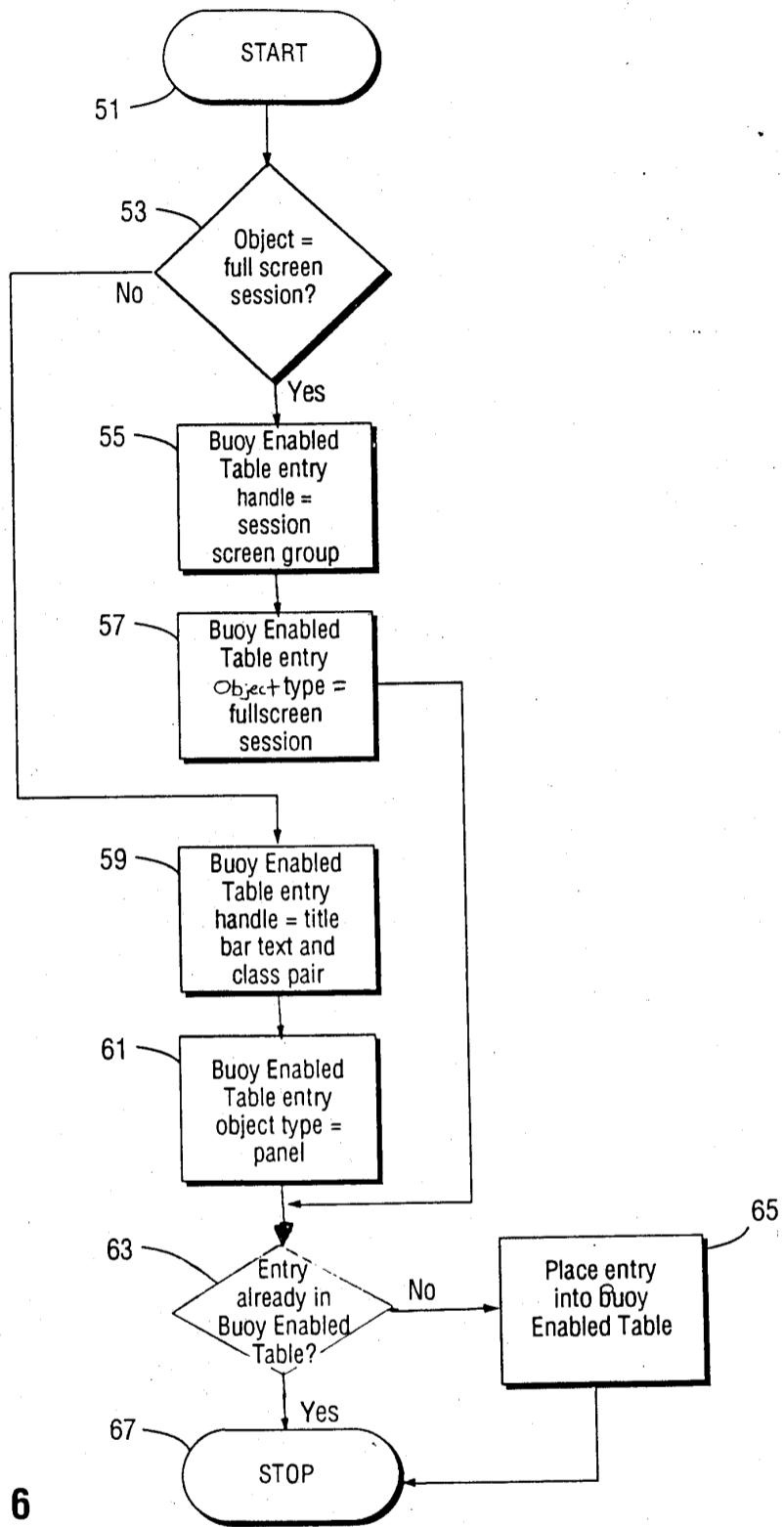


FIG. 6

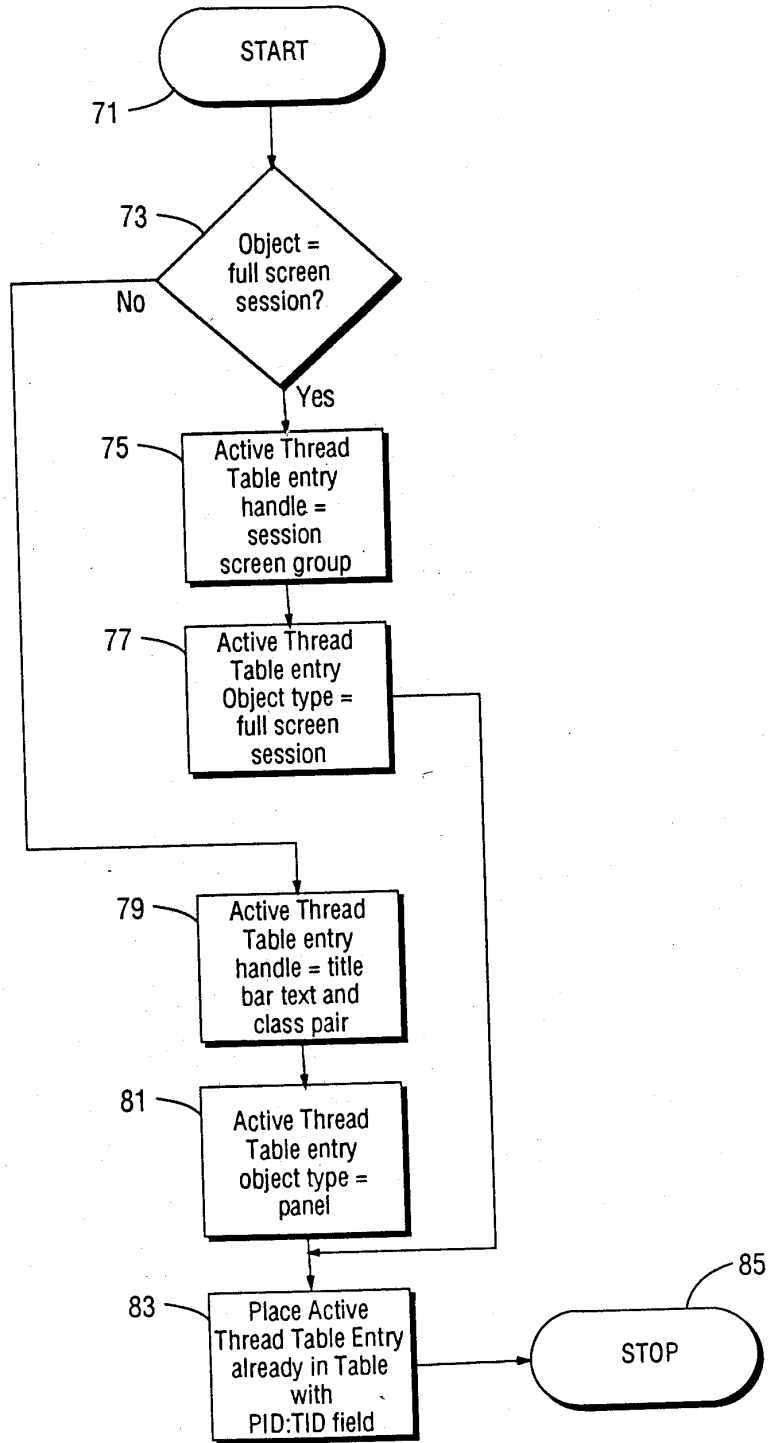


FIG. 7

08/17/94
586149

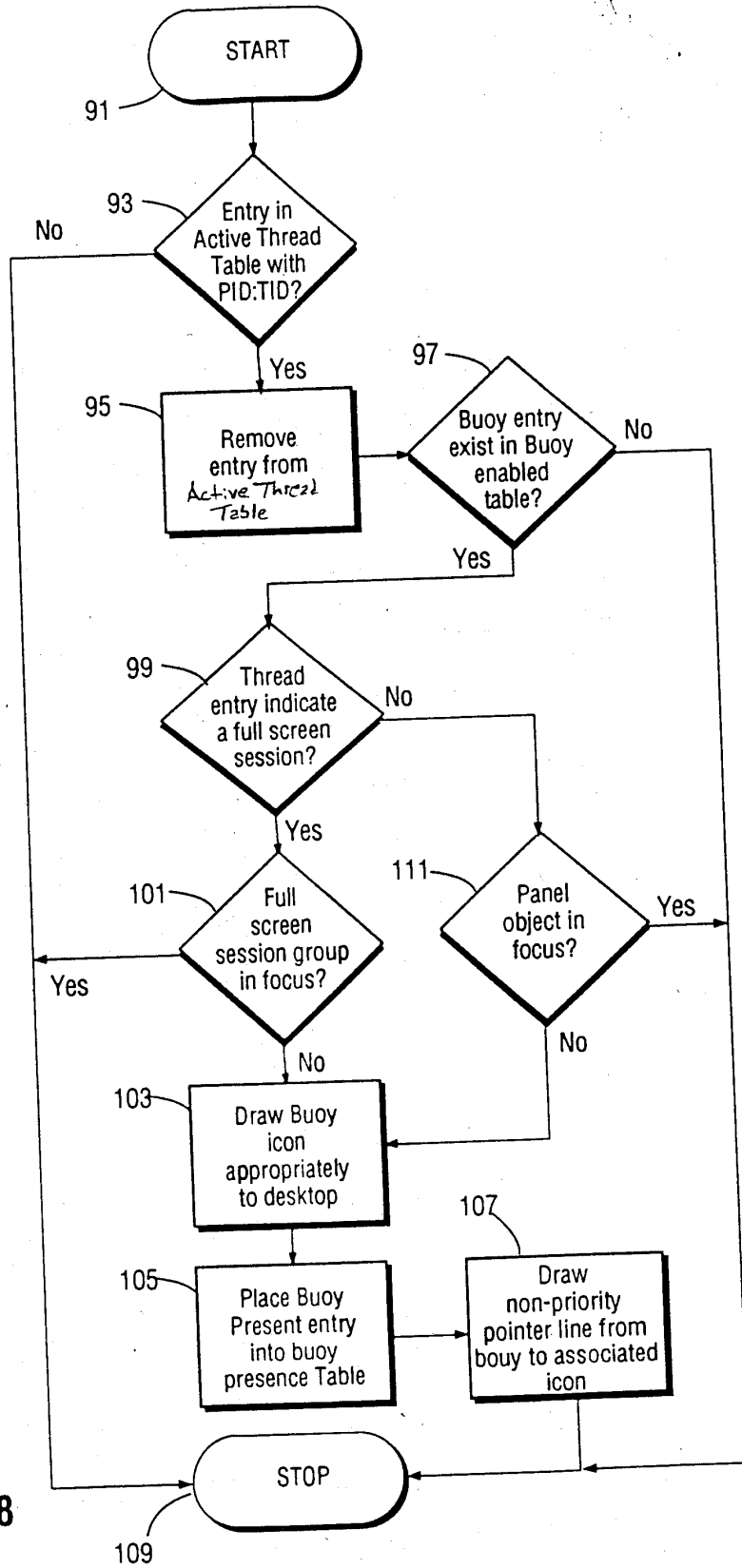


FIG. 8

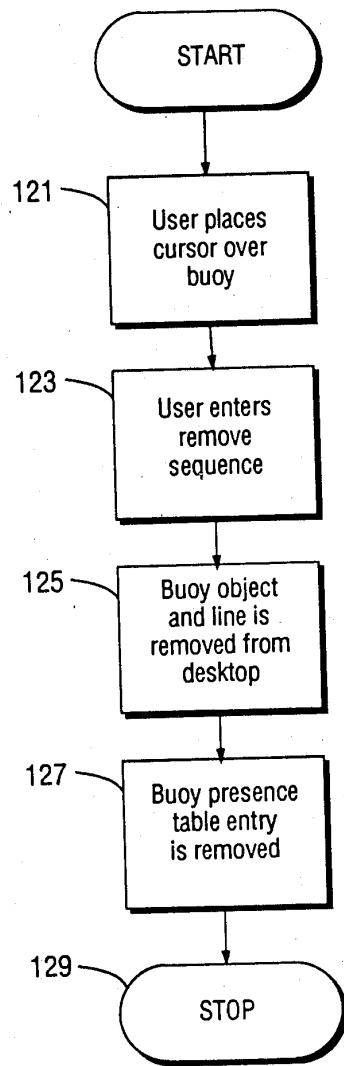


FIG. 9

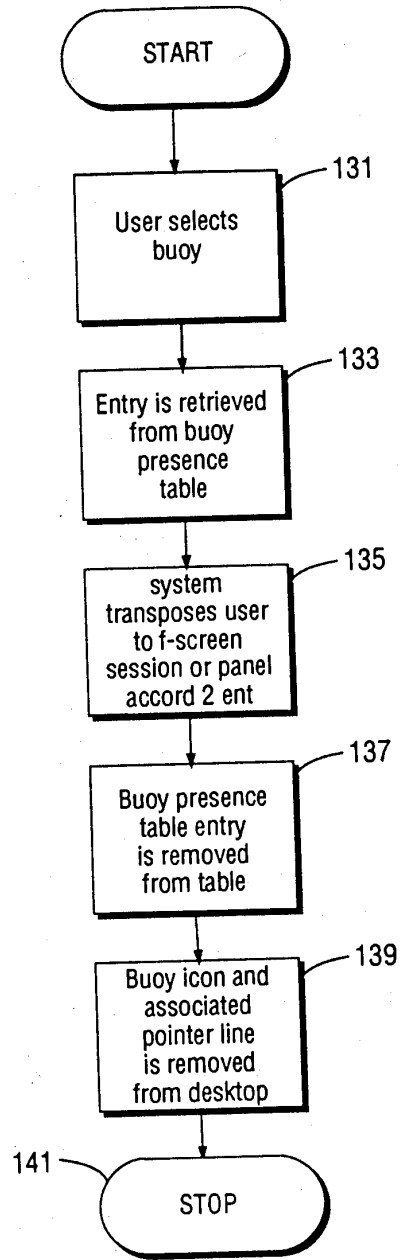


FIG. 10

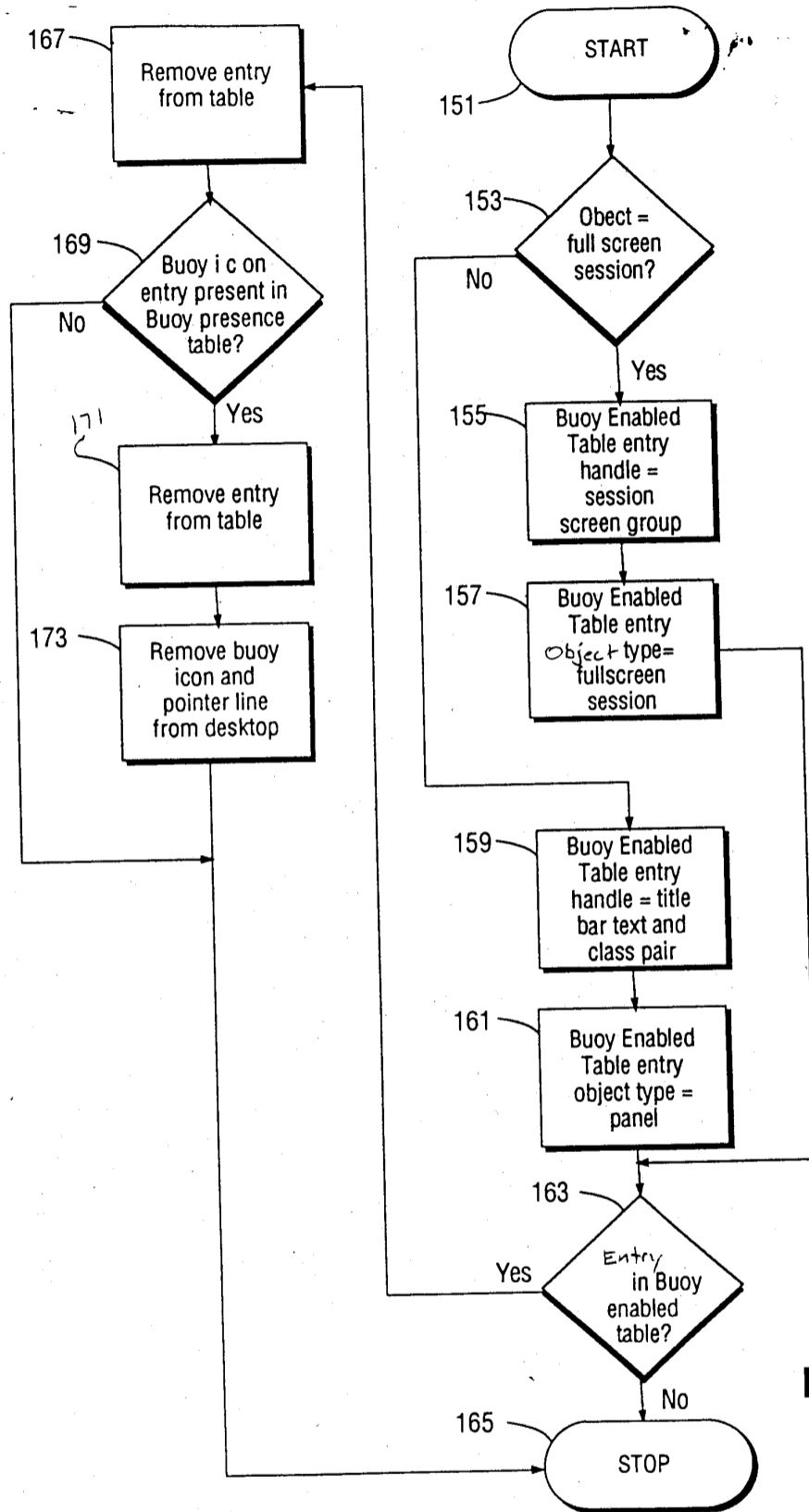


FIG. 11

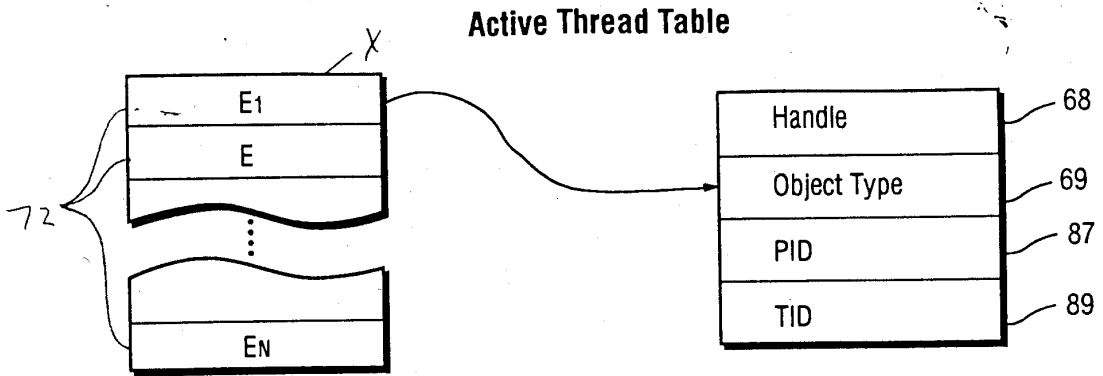


FIG. 12

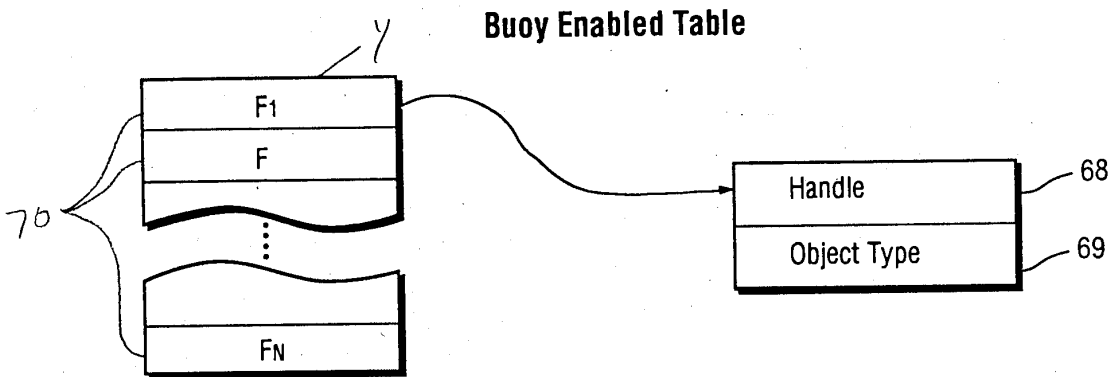


FIG. 13

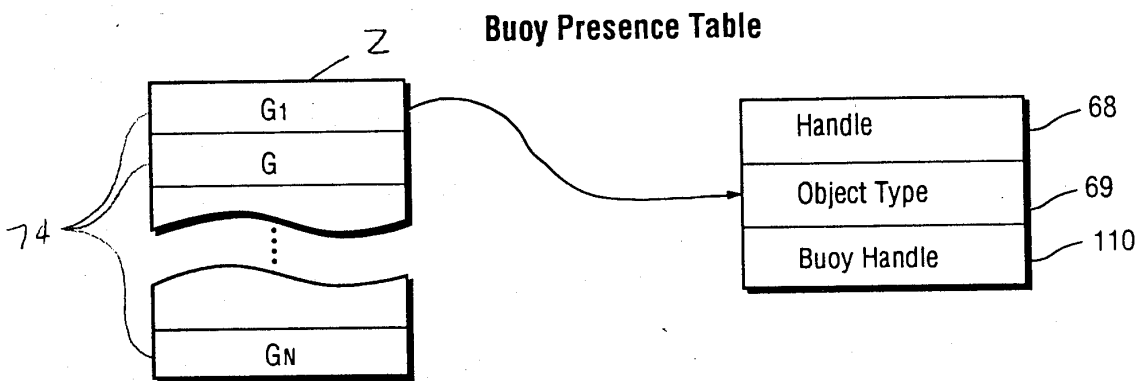


FIG. 14



08/179479

#2

1

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X
 In Re Application Of :
 Johnson et al. :
 Serial No. :
 Filed: :
 "BUOY ICON NOTIFICATION OF :
 OBJECT INTERFACE ACCESSIBILITY :
 IN MULTITASKING COMPUTER :
 ENVIRONMENT" :
 -----X

INFORMATION DISCLOSURE STATEMENT

Fort Worth, Texas 76102

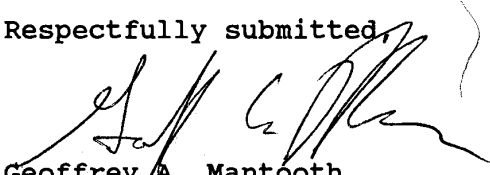
Hon. Commissioner of Patents
and Trademarks
Washington, D. C. 20231

Dear Sir:

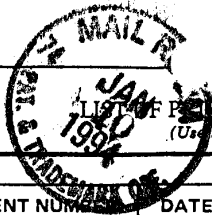
The prior art listed on the attached LIST OF PRIOR ART CITED BY APPLICANT and enclosed herewith was considered in the preparation of the subject patent application and is disclosed herein to comply with 37 CFR 1.56.

It is not seen that any of the foregoing references claim, disclose, nor suggest the invention of the subject patent application.

Respectfully submitted,


 Geoffrey A. Mantooth
 Reg. No. 32,042
 WOFFORD, FAILS, ZOBAL & MANTOOTH
 110 West Seventh, Suite 500
 Fort Worth, Texas 76102
 (817) 332-1233

Attorney for Applicant



08/586,149

#2

LIST OF PRIOR ART CITED BY APPLICANT <small>(Use several sheets if necessary)</small>	ATTORNEY'S DOCKET NO. DM-177
---	---------------------------------

U. S. PATENT DOCUMENTS						
DOCUMENT NUMBER	DATE	NAME	CLASS*	SUB-CLASS*	FILING DATE IF APPRO.	

FOREIGN PATENT DOCUMENTS								* Supply data if known.	
DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS*	SUB-CLASS*	PERTINENT SHTS. DWG.	PP. SPEC.		

- OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)**
1. PRESENTATION OF PROMPT INFORMATION, September 1990, IBM Research Disclosure n317 09-90.
 2. OPEN LOOK GRAPHICAL USER INTERFACE FUNCTIONAL SPECIFICATION, Sun Microsystems, Inc., 1989, Addison-Welsey Publishing Company, Inc., pgs. cover, inside, 91-94.
 3. COMMON ACCESS ADVANCED INTERFACE DESIGN GUIDE, Systems Application Architecture, IBM, June 1989, pgs. cover, inside, 83-87.
 4. OSF/MOTIF STYLE GUIDE, Open Software Foundation, Prentice Hall, 1991, pgs. cover, inside, 7-22 - 7-25, 7-31, 7-54, 7-71, 7-88 - 7-89, 7-92 - 7-93, 7-129, 7-133.

Date considered 2/8/95
 MB
 MB
 MB
 MB



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

DS

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
---------------	-------------	----------------------	---------------------

08/179,479 01/10/94 JOHNSON

W	DM177
EXAMINER	
BANANKHAH, M	

B3M1/0208

GEOFFREY A. MANTOOTH
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 WEST SEVENTH, STE. 500
FORT WORTH, TX 76102

ART UNIT	PAPER NUMBER
----------	--------------

2316

DATE MAILED:

02/08/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

- This application has been examined Responsive to communication filed on 1/10/94 This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), -0- days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. Claims 1-24 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. Claims _____ have been cancelled.
3. Claims _____ are allowed.
4. Claims 1-24 are rejected.
5. Claims _____ are objected to.
6. Claims _____ are subject to restriction or election requirement.
7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. Formal drawings are required in response to this Office action.
9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).
11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).
12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.
13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. Other

EXAMINER'S ACTION

PTOL-326 (Rev. 2/93)

Serial Number: 08/179479

-2-

Art Unit: 2316

Part III DETAILED ACTION

1. Claims 1-24 are presented for examination.

Drawings

2. The drawings are objected to for the reasons set forth in the notice of the Draftsman's Patent Drawing Review. Correction is required.

Claim Rejections - 35 USC § 112

3. Claim 1-24 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Per claim 1:

The claim is rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 706.03(f).

The step of "enabling a second object on a user interface of said computer to support user interaction" is vague because, it is unclear how a "second object" is related to the enablement of the user interface and what are the necessary step.

Serial Number: 08/179479

-3-

Art Unit: 2316

The claim is directed to "providing notification of the availability of an object" and then the first and second objects are executed and enabled, and then in the next step the "determination is made as to whether the first object is accessible". It is unclear what necessary steps are taken to accomplish this goal. The statement sound like statement of desired result or like one step claim. Additionally, step (d) determine "when" the first object becomes available and does not says how "notification of availability" is provide.

b) Per claim 2-5:

It is unclear how these unrelated steps constitute method of "determining when an object is available". As an example claim 2 provide a prompt, claim 3 display an icon, claim 4 display a name of the first object and claim 5 is related to the layout of the screen. It is unclear how these steps are related to steps of "providing notification" of availability of an object. These are not related to the actual step of "providing notification of availability" of anything. These steps are similar to claiming that the "color of computer is blue". Displaying "name of the object" and/or "drawing a line between the icon and the object" is not the step of providing something.

c) Per claim 6-12:

Serial Number: 08/179479

-4-

Art Unit: 2316

These claims are rejected because, they depend on claim 1, also rejected because they have similar deficiencies as set forth in connection with claims 2-5.

d) Per claims 13-24:

The steps of the method claims recites the function of the means and elements in corresponding apparatus claims and therefore contain the same defects as set forth in connection with the method claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Serial Number: 08/179479

-5-

Art Unit: 2316

5. Claims 1-24 are rejected under 35 U.S.C. § 103 as being unpatentable, over Green et al. (U.S.Pat. No. 5,333,256) in view of Jaaskelainen (U.S.Pat. No. 5,301,348).

Regarding claims 1-5 and 13-17, Green et al. taught the invention substantially as claimed including;

- a. a multitasking computer system;
- b. application programs including the first object are being executed;
- c. user interaction with one of the application or objects, See abstract, Fig.3, column 1 lines 20 through 32.

Green et al. does not teach of determination of first object being accessible and notification on user interface when first object becoming available.

Jaaskelainen, in the same field of endeavor teach of a data processing system and method including;

- a. determination for a user, of the progress of a task including termination and accessibility of the task;
- b. an icon to inform the user of the progress;

Jaaskelainen teach of a dynamic process marker icon in which the user is informed of the progress of a task, where the icon can be used to both graphic and non-graphic displays, in order for the user to be kept informed of the progress and eventually accessibility of the task without stopping working on other tasks and checking the availability of the task that has been

Serial Number: 08/179479

-6-

Art Unit: 2316

submitted, and resorting to language sensitive messages, See abstract lines 1 through 9, Fig.1, Fig.4B, and Fig.7.

It would have been obvious for one ordinary skill in the art of data processing to combine the multiprocessing computer of Green et al, with the "determination of the progress" and the "user icon representation of the progress and accessibility" of Jaaskelainen, for the purpose of making sure the user is kept informed of the progress and eventually accessibility of the task without stopping working on other tasks for checking the availability of the task that has been submitted, and resorting to language sensitive messages.

Regarding claims 6-9, and 18-21, Jaaskelainen teach of when the task monitor determines that one task work unit has completed, the symbol in the icon is replaced by a replacement character or a blank, column 2 lines 27-30, also the order in which symbols inside the icon are replaced is determined by the user and can be modified if desired, column 2 lines 14-21, and 33-35. In this environment a "tasks monitor" monitor the execution of the task and sends a message to icon generator and responsive to receiving the message, icon generator updates icon displayed to the user display, column 3 lines 11-16. Later in column 5 lines 27 through 44, Jaaskelainen teach of a pattern array containing pointer indicating the array location to be processed next.

Serial Number: 08/179479

-7-

Art Unit: 2316

Regarding claims 10, and 22, Green et al, in Fig.3, teach of active application window which is overlaid on top of the other application windows on the display device.

Regarding claims 11-12, and 23-24, Green et al., teach of a multitasking operating system in which when an application is being executed on an information processing system, it is represented by the display of an icon on a display device, and the icon which pictorially represents the associated application program and generally remain visible on the display while the user operates in an active window. In this environment, a determination is made as to when a virtual display buffer, which is associated with the application program is updated. A second icon, which is also associated with the application program, is displayed in response to the virtual display buffer being updated, in order to indicate a change in the status of the application program and the user does not have to restore the appearance of the application to the window associated therewith, See abstract, column 1 lines 65-68, and column 2 lines 1-9.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) U.S. Pat. No., 4783648, Homma et al., Nov. 8, 1988.

b) U.S. Pat. No., 4975690, Torres, Dec. 4, 1990.

Serial Number: 08/179479

-8-

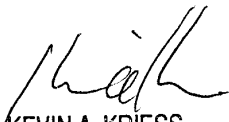
Art Unit: 2316

c) U.S. Pat. No., 5050105, Peters, Sep. 17, 1991.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Majid A. Banankhah whose telephone number is (703) 308-6903.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Majid A. Banankhah
Jan. 6, 1994


KEVIN A. KRIESS
PRIMARY EXAMINER
GROUP 2300

TO SEPARATE, HOLD TOP AND BOTTOM EDGES, SNAP-APART AND DISCARD CARBON

8/586,149

FORM PTO-892 (REV. 2-92)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	SERIAL NO. 08/179479	GROUPART UNIT 2316	ATTACHMENT TO PAPER NUMBER 3
NOTICE OF REFERENCES CITED		APPLICANT(S) William J. Johnson et al.		

U.S. PATENT DOCUMENTS

* A	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
A	5301348	Apr. 5, 94	Jaaskelainen	395	800	Mar. 20, 89
B	5333256	Jul. 26, 94	Green et al.	395	159	May 15, 89
C	4783648	Nov. 8, 88	Homma et al.	340	724	Jul 1, 85
D	4975690	Dec. 4, 90	Tomes	340	721	Nov. 7, 88
E	5050105	Sep. 17, 91	peters	364	521	Jan 26, 88
F						
G						
H						
I						
J						
K						

FOREIGN PATENT DOCUMENTS

* L	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS	PERTINENT SHTS. DWG.	PP. SPEC.
L								
M								
N								
O								
P								
Q								

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

R	
S	
T	
U	

EXAMINER Majid Banankhal	DATE Feb. 6, 95
-----------------------------	--------------------

* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05 (a).)



PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

4/A
dys
5/31/95

-----X
In Re Application Of :
Johnson, et al. :
Serial No. 08/179,479 :
Filed: January 10, 1994 :
"BUOY ICON NOTIFICATION OF :
OBJECT INTERFACE ACCESSIBILITY :
IN MULTITASKING COMPUTER :
ENVIRONMENT" :
-----X

: Examiner: Banankhan, M.
: Art Unit: 2316

RECEIVED
MAY 25 1995
PATENT & TRADEMARK OFFICE
EXAMINER'S OFFICE

AMENDMENT

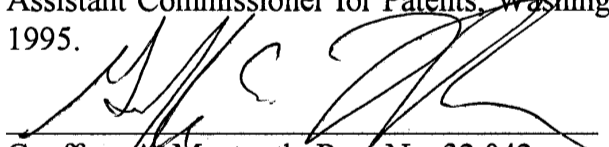
Assistant Commissioner for
Patents
Washington, D.C. 20231

RECEIVED
MAY 30 1995
GROUP 2300

Dear Sir:

Responsive to the Office Action mailed February 8, 1995, please amend the above identified patent application as follows.

I hereby certify this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on May 8, 1995.



Geoffrey A. Mantooh, Reg. No. 32,042

P 30265 06/01/95 08179479 09-0453 030 103 44.00CH

Q

IN THE CLAIMS

Please cancel claims 10 and 22.

Please amend claims 1-5, 8, 9, 11-17, 20, 21, 23, and 24 as follows.

1. (Amended) A method that is implemented [for providing notification of availability of an object] on a multitasking computer that comprises first and second objects, said method providing notification of a status of said first object on said computer, comprising the steps of:

a) executing [a] said first object on said computer;
b) while said first object is executing, enabling [a] said second object [on a user interface of said computer] so as to support user interaction with said second object on a user interface of said computer;

c) while said second object is enabled so as to support user interaction, determining when said first object ceases executing; [becomes accessible; and]

d) while said first object is executing, providing no notification on said user interface of said status of said first object;

[d)] e) providing a notification on said user interface when said first object [becomes accessible.] ceases executing by displaying a notification icon on a user interface of said computer, said notification icon being separate from said first object.

2. (Amended) The method of claim 1 wherein said step of determining when said first object ceases executing [becomes accessible] further comprises the step of determining when said first object provides a prompt for a user input.

3. (Amended) The method of claim 1 wherein said step of displaying a notification icon on a user interface [providing a notification on said user interface when said first object becomes accessible] further comprises the step of displaying a buoy shaped icon on a screen.

4. (Amended) The method of claim 1 [3] wherein said step of providing a notification on said user interface when said first object ceases executing [becomes accessible] further comprises the step of displaying a name of said first object in proximity to said [buoy] notification icon.

Dub ED
R 10
You cannot read
with my life

design
to read
who
negative
be in fact

24

0

a1
5. (Amended) The method of claim 1 [3] wherein said step of providing a notification on said user interface when said first object ceases executing [becomes accessible] further comprises the step of displaying a line between said [buoy] notification icon and said first object on said screen.

8. ~~In claim 8, line 2, after "notification", please insert --icon--.~~

a
9. (Amended) The method of claim 1 further comprising the steps of:
a) selecting said notification icon; and
b) based upon said selecting of said notification icon, focusing said first object on said user interface, said step of focusing said first object on said user interface further comprising the step of enabling said first object for receiving a user input.

a2
10. (Amended) The method of claim 1 wherein said computer comprises a third object and said notification icon is a first notification icon, further comprising the steps of:
a) executing said third object;
b) determining when said third object ceases executing [becomes accessible];
c) displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object [becomes accessible]; and
d) removing said second notification icon from said user interface while maintaining said first notification icon on said user interface.

11
12. (Amended) The method of claim 1 wherein said computer comprises a third object and said notification is a first notification, further comprising the steps of:
a) executing said third object;
b) determining when said third object ceases executing [becomes accessible];
c) displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object [becomes accessible];
d) selecting said second notification icon; and
e) based upon said selecting of said second notification icon, focusing said third object on said user interface while maintaining said first notification icon on said user interface.

13. (Amended) An apparatus for use with [for providing notification of availability of an object on] a multitasking computer, ~~said computer comprising first and second objects, said apparatus providing notification of a status of said first object on said computer,~~ comprising:

- a) means for executing [a] ~~said first object on said computer;~~
- b) means for enabling [a] ~~said second object [on a user interface of said computer] so as to support user interaction with said second object on a user interface of said computer while said first object is executing;~~
- c) means for determining when said first object ~~ceases executing while said second object is enabled so as to support user interaction; [becomes accessible; and]~~
- d) means for providing ~~no notification on said user interface of said status of said first object while said first object is executing;~~

[d] e) means for providing a notification on said user interface when said first object [becomes accessible] ~~ceases executing by displaying a notification icon on a user interface of said computer, said notification icon being separate from said first object.~~

14. (Amended) The apparatus of claim ¹³ wherein said means for determining when said first object ~~ceases executing [becomes accessible]~~ further comprises means for determining when said first object provides a prompt for a user input.

15. (Amended) The apparatus of claim ¹³ wherein said means for providing a notification on said user interface when said first object ~~ceases executing by displaying a notification icon [becomes accessible]~~ further comprises means for displaying a buoy shaped icon on said screen.

16. (Amended) The apparatus of claim ¹³ [15] wherein said means for providing a notification on said user interface when said first object ~~ceases executing [becomes accessible]~~ further comprises means for displaying a name of said first object in proximity to said [buoy] ~~notification icon.~~

17. (Amended) The apparatus of claim ¹³ [15] wherein said means for providing a notification on said user interface when said first object ~~ceases executing [becomes accessible]~~ further comprises means for displaying a line between said [buoy] ~~notification icon and said first object on said screen.~~

20. In claim 20, line 2, after "notification", please insert --icon--.

426

0

²⁰21. (Amended) The apparatus of claim ¹²13 further comprising:

- a) means for selecting said notification icon; and
- b) means for focusing said first object on said user interface based upon said selecting of said notification icon, said means for focusing said first object on said user interface further comprising means for enabling said first object for receiving a user input.

A3

²¹23. (Amended) The apparatus of claim ¹²13 wherein said computer comprises a third object and said notification icon is a first notification icon, further comprising:

- a) means for executing said third object;
- b) means for determining when said third object ceases executing [becomes accessible];
- c) means for displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object [becomes accessible]; and
- d) means for removing said second notification icon from said user interface while maintaining said first notification icon on said user interface.

²¹24. (Amended) The apparatus of claim ¹²13 wherein said computer comprises a third object and said notification icon is a first notification icon, further comprising:

- a) means for executing said third object;
- b) means for determining when said third object ceases executing [becomes accessible];
- c) means for displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object [becomes accessible];
- d) means for selecting said second notification icon; and
- e) means for focusing said third object on said user interface while maintaining said first notification icon on said user interface based upon said selecting of said second notification icon.

5 27

9

Please add claims 25-28.

²³25. The method of claim ⁹9 wherein said step of enabling said second object further comprises the step of displaying said second object on a computer screen so that said second object occupies all of said screen.

²⁴26. The apparatus of claim ²⁰21 wherein said means for enabling said second object further comprises means for displaying said second object on a computer screen so that said second object occupies all of said screen.

²⁴27. The method of claim ¹1, wherein said step of displaying a notification icon on a user interface further comprises the step of displaying said notification icon in a first location on said user interface, said first object being located in a second location on said user interface, with said first and second locations being separate from each other.

28. The apparatus of claim ¹³13 wherein said means for displaying a notification icon on a user interface further comprises means for displaying said notification in a first location on said user interface, said first object being located in a second location on said user interface, with said first and second locations being separate from each other.

28

Q

REMARKS

In the Office Action dated February 8, 1995, the Examiner objected to the drawings and cited a Notice of Draftman's Patent Drawing Review. However, the Office Action did not contain such a Notice. Applicants respectfully request that the Notice be provided in the next communication from the Examiner.

The Examiner rejected claims 1-24 under 35 USC 112, second paragraph. Applicants respectfully traverse this rejection.

Regarding 1 and 13 and their dependent claims, the Examiner states that the step of "enabling a second object" is vague. The Examiner suggests that the user interface is enabled. Applicants respectfully disagree. The user interface is not enabled. Instead, the second object is enabled. The claims have been amended to clarify this.

The Examiner also states that it is unclear what steps are taken to accomplish the goal of "providing notification of the availability of an object". The claims have been amended to clarify this. Taking claim 1 as an example, the method provides notification of the status of a first object, which is on a computer. The first object is executed. After the first object is executed, a second object is enabled for user interaction. Thus, a user can do tasks with the second object such as type in data, etc. In the preferred embodiment, the second object will be displayed as the top most window 33 (Fig. 2) or as taking up the entire screen 34 (Fig. 4). While the second object is so enabled, the method monitors the first object to determine when the first object ceases executing. When the first object ceases executing, a notification icon is displayed.

Regarding claims 2-5 (and by analogy claims 14-17), the method provides notification of status of a first object. The steps of claims 2-5 are related to this. Specifically, claim 2 determines when the first object ceases executing by determining if the first object provides a prompt. This indicates that the first object requires user input to proceed with any further execution. Claim 2 specifies a particular way in which an object ceases execution. Claim 3 provides additional information on the notification icon by providing that the notification icon is buoy shaped. Claim 4 provides additional information on notification by providing that a name of the first object is displayed in proximity to the notification icon. Claim 5 provides that a line is displayed between the notification icon and the first object. Displaying a name and a line further notify humans, who are visually oriented creatures.



The Examiner rejected claims 1-24 under 35 USC 103 as being unpatentable over Green in view of Jaaskelainen. Applicants respectfully traverse this rejection.

Green teaches a multi-tasking computer system. An application program 44 (Fig. 3) can be a window or it can be minimized to an icon 56 (Fig. 4). When the application program is minimized, Green monitors the status of the application program by monitoring if a virtual display buffer, which is associated with the application program, is updated. If the buffer is updated, then the icon representing the application program is changed to an update icon (Fig. 6).

Jaaskelainen teaches a dynamic progress marking icon that shows how a particular task is progressing. As the task progresses, portions of the icon disappear.

Unlike claims 1 and 13, which provide no notification while the object is executing, Green and Jaaskelainen teach providing a notification of status during the execution of the application program. With Applicants' invention, the notification icon suddenly appears on the user interface. This sudden appearance draws the user's attention to the notification icon. While the object is executing, there is no notification of the status of the object. Thus, the user can interact with the second object and not be distracted by status information of the first object during the execution of the first object.

Green teaches providing notification of the status of the application program during its execution by displaying a no-update icon. A user can determine the status of the object by seeing if the icon has changed to an update icon. Jaaskelainen teaches providing a changing icon that continually shows the updated status of the executing task. When the task is complete, the icon changes for the last time. With both Green and Jaaskelainen, the user must focus his or her vision on the status icon in order to determine the status. With Applicants' invention, the user can use peripheral vision to see the sudden appearance of the notification icon. This allows the user to concentrate on the second object without the need to break concentration and visually check to see if an icon (such as is provided by the prior art) has changed.

Furthermore, neither Green nor Jaaskelainen teach providing notification on a user interface of when a first object ceases executing by displaying a notification icon on a user interface, which notification icon is separate from the first object. Green represents the application program several ways, namely as a window 44, as a no-update icon (Fig. 5), and as an update icon (Fig. 6). Notification of a change in the virtual buffer is provided by changing the object itself from a no update icon to an update icon. There is no teaching of providing an icon that is separate from the

application program itself. Jaaskelainen teaches a status icon, but does not teach if it is separate from the executing task. Thus, neither reference displays an icon that is separate from the first object.

Claims 2 and 14 are dependent upon claims 1 and 13, the allowability of which already been discussed.

Claims 3 and 15 provide that the icon is a buoy shaped icon. Neither Green nor Jaaskelainen teach a buoy shaped icon. In fact, both Green and Jaaskelainen teach away from a buoy shaped icon. Green teaches an icon representation of an application program. In Fig. 3, the application program is "PCPrint". When reduced to an icon, the icon is shaped like a printer. Thus, the icon shape conveys information about the application itself. Jaaskelainen teaches an icon that has plural identical elements which can be eliminated as the task progresses. A buoy icon would not be appropriate for Jaaskelainen because it does not have plural identical elements which can be eliminated over time.

Claims 4 and 6 provide that a name of the first object is displayed close to the icon. Because neither Green nor Jaaskelainen teach provide notification icon (a buoy icon) that is separate from an application program itself, there is no suggestion or need to provide a name to the notification icon.

Claims 5 and 17 provide a line between the notification icon and the first object. Because neither Green nor Jaaskelainen teach providing a notification icon that is separate from an application program itself, there is no suggestion to provide a line connecting the application icon and another icon.

Claims 6, 7, 18 and 19 provide enabling and disabling the notification for selective objects. Thus, applicants' invention allows a user to provide whether a notification icon should be provided at all for a particular object. If notification is enabled for an object, then a notification icon will be displayed. However, if notification is not enabled, then a notification icon will not be displayed. The user cites several portions of Jaaskelainen. But these portions only teach the removal of "percent" signs as the task progresses (see Fig. 2). This is irrelevant as to whether a notification should be provided at all for any particular application program.

Claims 8 and 20 provide removing the notification icon from the user interface. Neither Green nor Jaaskelainen teach this.

Claims 9 and 21 provide selecting the notification icon and then focusing the first object to enable the first object for user interaction. Neither Green nor Jaaskelainen teach focusing an object from a notification icon that is separate from the object icon itself. Typically an



object is focused by double clicking on the iconized object itself, not on a separate icon.

New claims 26 and 27 are dependent upon claims 9 and 21 and provide that the second object occupancies the entire screen. The second object is a "full screen session", such as is shown in Fig. 4. The first object is obscured by the second object because the second takes up the entire screen. However, the first object can be enabled by selecting the notification icon. The prior art does not teach this.

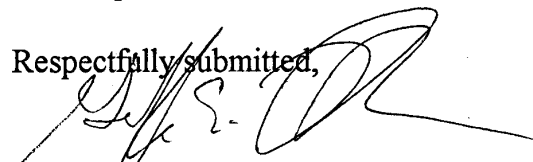
Claims 11 and 23 provide that a third object is executed. When the third object ceases execution, a second notification icon is displayed on the user displayed on the user interface. That second notification icon is removed while maintaining a first notification icon on the user interface. Neither Green nor Jaaskelainen teach displaying a second notification icon when a third object ceases executing. Nor do Green or Jaaskelainen teach removing one notification icon while maintaining another notification icon on the user interface.

Claims 12 and 14 provide executing a third object and displaying a second notification icon when the third object ceases executing. The second notification icon is selected, wherein the third object is focused on the user interface. Neither Green nor Jaaskelainen provide focusing an object from a notification icon itself.

In view of the foregoing, it is submitted that all of the claims in the application are allowable, and such allowance is respectfully requested.

Please charge deposit account no. 09-0453 in the amount of \$88.00 for the four new dependent claims. If any additional fees are required, or overpayments made, please charge or credit deposit account no. 09-0453.

Respectfully submitted,


Geoffrey A. Mantooth
Reg. No. 32,042

WOFFORD, FAILS, ZOBAL
& MANTOOTH

110 West Seventh Street, Suite 500
Fort Worth, Texas 76102

(817) 332-1233

(817) 332-5636 FAX

Attorney for Applicants



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
---------------	-------------	----------------------	---------------------

08/179,479 01/10/94 JOHNSON

W DM177

EXAMINER
BANANKHAH, R

B3M1/0808

ART UNIT PAPER NUMBER

GEOFFREY A. MANTOOTH
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 WEST SEVENTH, STE. 500
FORT WORTH, TX 76102

2316

DATE MAILED: 08/08/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on May 11, 95 This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), -0- days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- Notice of References Cited by Examiner, PTO-892.
- Notice of Draftsman's Patent Drawing Review, PTO-948.
- Notice of Art Cited by Applicant, PTO-1449.
- Notice of Informal Patent Application, PTO-152.
- Information on How to Effect Drawing Changes, PTO-1474.
-

Part II SUMMARY OF ACTION

1. Claims 1-28 are pending in the application.

Of the above, claims 10 and 22 are withdrawn from consideration.

2. Claims _____ have been cancelled.

3. Claims _____ are allowed.

4. Claims 1-9, 11-21, and 23-28 are rejected.

5. Claims _____ are objected to.

6. Claims _____ are subject to restriction or election requirement.

7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. Formal drawings are required in response to this Office action.

9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).

11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).

12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.

13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. Other

EXAMINER'S ACTION

PTOL-326 (Rev. 2/93)

Serial Number: 08/179479
Art Unit: 2316

-2-

1. This final action is in response to paper number 4, amendment A, which was received May 11, 1995. Applicant's arguments have been fully considered but they are not deemed to be persuasive. Claims 1-9, 11-21, and 23-28 are presented for examination.

2. The text of those sections of Title 35, U.S. Code not included in this office action can be found in a prior Office action.

3. Claim 1-9, 11-21, and 23-28 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claim 1, and 13, in line 7, the statement "so as to support user interaction" is a statement of desired result because, it is unclear by what step of the method enabling of the second object can provide user support for itself. In step (c), in the statement "determining when said first object ceases executing", it is unclear who is determining. Additionally, it appears that this step and the next step, i.e. step (d) are interchanged because, in this step object one is ceased and then in the next step it is executing.

Step (d), the statement "providing no notification on said user interface" is a negative limitation and tends to define the invention in terms of what it was not, rather than pointing out the invention.

Step (e) is incomprehensible because, the statement "said notification icon being separate from said first object" is vague. The notification is to indicate to the user that an

Serial Number: 08/179479
Art Unit: 2316

-3-

event has happened and it is clear that it is a separate program from the object itself because otherwise the notification would have ceased with the termination of execution of the first object.

Per claim 3, it is noted that the "notification icon" limitation is further limited by the shape of the icon, and it is unclear whether the application is a utility patent or a "design patent". It is unclear whether the shape of the icon is the issue or the functionality.

The dependent claims are rejected because of the rejection of their parent claims.

4. Claims 1-9, 11-21, and 23-28 are rejected under 35 U.S.C. § 103 as being unpatentable over Green et al. (U.S.Pat. No. 5,333,256) in view of Jaaskelainen (U.S.Pat. No. 5,301,348).

Before starting the detail of the rejection, it is important to mention that the Examiner will try to rewrite the 35 USC 103 rejection in such a detail manner, so that it will be responsive to the specific issues raised in the argument section of the amendment.

i) Per claim 1, and 13, Green, disclose an apparatus and a method that is implemented on a **multi-tasking**, col. 1, line 20, computer that comprises **first and second objects**, col. 1, line 21, said method providing **notification of status**, col. 1, lines 44-62, of said first object on said computer, comprising the steps of:

a) **executing** said first object on said computer;

b) while first object is executing, **enabling** said **...user interface** of said computer, col. 1, lines 65-68, col. 2, lines 1;

Serial Number: 08/179479
Art Unit: 2316

-4-

c) while said second ...**determining** when said first object ceases execution, col. 1, lines 58, and lines 60-62;

It should be mentioned that the notification of the application is a separate program than the application itself, otherwise there would be no indication of the completion of the application after termination of the application. Additionally, the notification of application being ceased is sudden and there is no time lag between the event and the indication.

Green, does not explicitly teach of determination of first object ceasing execution, while second object is enabled so as to support user interaction.

Jaaskelainen, teach of a dynamic process marker icon in which the user is informed of the progress of a task, in order for the user to be kept informed of the progress and eventually accessibility of the task without stopping working on other tasks and checking the availability of the task that has been submitted, See Abs. lines 1-9, Fig. 1, Fig. 4B, Fig. 7, and col. 2, lines 8-11, lines 14-19.

Therefore, it would have been obvious for one ordinary skill in the art of data processing to combine the teaching of Green, with the user icon representation of Jaaskelainen, in order for the user to be kept informed of the progress and eventually accessibility of the task without stopping working on other tasks and checking the availability of the task that has been submitted.

Green's, does not explicitly teach of "providing no notification on the user interface of the status of the first object". But, Green's invention determines the status of the progress of

Serial Number: 08/179479
Art Unit: 2316

-5-

the tasks plus the status of the application at the time when the application have ceased, for being notified of the progress of the task at any events.

It would have been obvious for one ordinary skill in the art at the time the invention was made to delete the indication on the user interface while the object is executing if he desire to be notified only in the event the object ceases and not other events, for the purpose of being notified at the time when the object becomes available or ceases execution and the user does not need to check on the object for its execution progress.

ii) Per claim 2, and 14, Green, in col. 2, lines 4-8, teach of determining when first object provide **prompt for a user input**, col 4, lines 26-31.

iii) Per claim 3, and 15, both green and Jaaskelainen, teach of icons in the shape of an application program and/or (%) respectively and in term of functionality the shape of a printer (in Green) or a square with some element inside (Jaaskelainen), and a Buoy are all the same.

iv) Per claim 4, and 6, Green teach providing notification icon that is separate from the application program, and provide a **name** to the notification icon, Fig. 4, 56.

v) Per claim 5, and 17, Jaaskelainen, teach of drawing horizontal and vertical lines in Fig. 7, 73, for the purpose of drawing an icon with some square shape. Therefore, it would have been obvious for one ordinary skill in the art to draw a line from the indication icon to the application icon for in order for the user to know which indication belong to which application.

Serial Number: 08/179479
Art Unit: 2316

-6-

vi) Per claim 6, 7, 8, 18, 19, and 20, Jaaskelainen, teach of **enabling and disabling** of the notification for selected ones of the objects in col. 6, lines 61-68.

vii) Per claim 9, and 21, Green teach of the case when the notification icon is selected and user interface is prompted for a **user input**, col. 4, lines 48-51.

viii) Per claim 11-12, and 23-24, in the background of the invention teach of a multi-tasking operating system and the fact that a user may execute several application programs simultaneously, and later he teach of association of each of the application programs with a respective window. Removing notification icon on a user interface in Green's teaching is not limited to one application and one notification icon.

ix) Per claim 25, and 26, Green, teach of displaying an object so that it **occupies all of the screen** in col. 1, lines 44-59.

x) Per claim 27, and 28, Green teach of two separate icon at two different location, col. 5, lines 21-39.

5. Applicant on page 9, lines 2-3 of his Remarks, argue that "neither reference displays an icon that is separate from the first icon". In response thereto, applicants attention is respectfully directed to part the rejection of the claims under 35 US 103, part (ix).

For the response to the later arguments regarding claims, 2, and 14, 3 and 15, 4 and 6, 5 and 17, 6-8 and 18-20, 9 and 21, 11-12 and 23-24, 25 and 26, 27 and 28, in the following paragraphs, Applicant's attention is directed to the rejection of the claims under 35 USC 103, parts (ii)-(x) respectively.

Serial Number: 08/179479
Art Unit: 2316

-7-

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See PTO 892 for pertinent references.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE (i) The application has been amended as follows:

ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Majid A. Banankhah whose telephone number is (703) 308-6903.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Majid A. Banankhah
Aug. 3, 1995


KEVIN A. KRIESS
PRIMARY EXAMINER
GROUP 2300

TO SEPARATE, HOLD TOP AND BOTTOM EDGES, SNAP-APART AND DISCARD CARBON

08/586,149

FORM PTO-892 (REV. 2-92)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	SERIAL NO. 08/179479	GROUP/ART UNIT 2316	ATTACHMENT TO PAPER NUMBER 5
NOTICE OF REFERENCES CITED		APPLICANT(S) William J. Johnson		

U.S. PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
A	5113517	May 12, 92	Beard et al.	364	200	
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						

FOREIGN PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS	PERTINENT SHTS. DWG.	PP. SPEC.
L								
M								
N								
O								
P								
Q								

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

R	
S	
T	
U	

EXAMINER Majid Banonkhal	DATE Aug. 3, 95
-----------------------------	--------------------

* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05 (a).)

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

The drawings filed (insert date) 11/10/94, are
 A. not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.
 B. objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this Notice.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings:

- Black ink. Color.
- Not black solid lines. Fig(s) _____
- Color drawings are not acceptable until petition is granted.

2. PHOTOGRAPHS. 37 CFR 1.84(b)

- Photographs are not acceptable until petition is granted.

3. GRAPHIC FORMS. 37 CFR 1.84 (d)

- Chemical or mathematical formula not labeled as separate figure. Fig(s) _____
- Group of waveforms not presented as a single figure, using common vertical axis with time extending along horizontal axis. Fig(s) _____
- Individuals waveform not identified with a separate letter designation adjacent to the vertical axis. Fig(s) _____

4. TYPE OF PAPER. 37 CFR 1.84(e)

- Paper not flexible, strong, white, smooth, nonshiny, and durable. Sheet(s) _____
- Erasures, alterations, overwritings, interlineations, cracks, creases, and folds not allowed. Sheet(s) _____

5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable paper sizes:

- 21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)
- 21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)
- 21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)
- 21.0 cm. by 29.7 cm. (DIN size A4)

- All drawing sheets not the same size. Sheet(s) _____
- Drawing sheet not an acceptable size. Sheet(s) _____

6. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Paper size			
21.6 cm. X 35.6 cm. (8 1/2 X 14 inches)	21.6 cm. X 33.1 cm. (8 1/2 X 13 inches)	21 cm. X 27.9 cm. (8 1/2 X 11 inches)	21 cm. X 29.7 cm. (DIN Size A4)
T 5.1 cm. (2")	2.5 cm. (1")	2.5 cm. (1")	2.5 cm.
L .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	2.5 cm.
R .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.5 cm.
B .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.0 cm.

Margins do not conform to chart above.

- Sheet(s) _____
- Top (T) Left (L) Right (R) Bottom (B)

7. VIEWS. 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

- All views not grouped together. Fig(s) _____
- Views connected by projection lines. Fig(s) _____
- Views contain center lines. Fig(s) _____

Partial views. 37 CFR 1.84(h)(2)

- Separate sheets not linked edge to edge. Fig(s) _____
- View and enlarged view not labeled separately. Fig(s) _____
- Long view relationship between different parts not clear and unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) _____

Sectional views. 37 CFR 1.84(h)(3)

- Hatching not indicated for sectional portions of an object. Fig(s) _____
- Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) _____
- Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) _____
- Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) _____
- Hatching of juxtaposed different elements not angled in a different way. Fig(s) _____

Alternate position. 37 CFR 1.84(h)(4)

- A separate view required for a moved position. Fig(s) _____

Modified forms. 37 CFR 1.84(h)(5)

- Modified forms of construction must be shown in separate views. Fig(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

- View placed upon another view or within outline of another. Fig(s) _____
- Words do not appear in a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____

9. SCALE. 37 CFR 1.84(k)

- Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) _____
- Indication such as "actual size" or "scale 1/2" not permitted. Fig(s) _____
- Elements of same view not in proportion to each other. Fig(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)

- Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (except for color drawings). Fig(s) 1, 2

11. SHADING. 37 CFR 1.84(m)

- Shading used for other than shape of spherical, cylindrical, and conical elements of an object, or for flat parts. Fig(s) _____
- Solid black shading areas not permitted. Fig(s) _____

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)

- Numbers and reference characters not plain and legible. 37 CFR 1.84(p)(1) Fig(s) 1, 2
- Numbers and reference characters used in conjunction with brackets, inverted commas, or enclosed within outlines. 37 CFR 1.84(p)(1) Fig(s) _____
- Numbers and reference characters not oriented in same direction as the view. 37 CFR 1.84(p)(1) Fig(s) _____
- English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) _____
- Numbers, letters, and reference characters do not measure at least .32 cm. (1/8 inch) in height. 37 CFR(p)(3) Fig(s) _____

13. LEAD LINES. 37 CFR 1.84(q)

- Lead lines cross each other. Fig(s) _____
- Lead lines missing. Fig(s) _____
- Lead lines not as short as possible. Fig(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)

- Number appears in top margin. Fig(s) _____
- Number not larger than reference characters. Fig(s) _____
- Sheets not numbered consecutively, and in Arabic numerals, beginning with number 1. Sheet(s) _____

15. NUMBER OF VIEWS. 37 CFR 1.84(u)

- Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____
- View numbers not preceded by the abbreviation Fig. Fig(s) _____
- Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters. Fig(s) _____

16. CORRECTIONS. 37 CFR 1.84(w)

- Corrections not durable and permanent. Fig(s) _____

17. DESIGN DRAWING. 37 CFR 1.152

- Surface shading shown not appropriate. Fig(s) _____
- Solid black shading not used for color contrast. Fig(s) _____

ATTACHMENT TO PAPER NO. _____

REVIEWER _____

DATE 2/7/94

DEC-07-1995 14:34 FROM WOFF FAILS ZOBAL & MANT TO 17033085359 P.03

FAX RECEIVED
DEC 07 1995
GROUP 2300

6/B
N.E.

PATENTS
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X
In Re Application Of :
Johnson, et al. :
Serial No. 08/179,479 :Examiner: Banankhah, M.
Filed: January 10, 1994 :Art Unit: 2316
"BUOY ICON NOTIFICATION OF :
OBJECT INTERFACE ACCESSIBILITY :
IN MULTITASKING COMPUTER :
ENVIRONMENT" :
-----X

AMENDMENT B

Box AF
Assistant Commissioner for
Patents
Washington, D.C. 20231

OFFICIAL

Dear Sir:

Responsive to the Office Action mailed August 8, 1995, please amend the above identified patent application as follows.

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office on December 07, 1995.



Geoffrey A. Mantooth, Reg. No. 32,042

Please do not
enter 12/13/95
MB.

IN THE CLAIMS

Please amend claims 1 and 13 as follows.

1. (Twice Amended) A method that is implemented on a multitasking computer that comprises first and second objects, said method providing notification of a status of said first object on said computer, comprising the steps of:
- a) executing said first object on said computer;
 - b) while said first object is executing, enabling said second object so as to support user interaction with said second object on a user interface of said computer;
 - c) while said second object is enabled so as to support user interaction, determining when said first object ceases executing;
 - d) [while said first object is executing, providing no notification on said user interface of said status of said first object;
 - e)] providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on a user interface of said computer, said notification icon being separate from a representation of said first object on said user interface.

13. (Twice Amended) An apparatus for use with a multitasking computer, said computer comprising first and second objects, said apparatus providing notification of a status of said first object on said computer, comprising:

- a) means for executing said first object on said computer;
- b) means for enabling said second object so as to support user interaction with said second object on a user interface of said computer while said first object is executing;
- c) means for determining when said first object ceases executing while said second object is enabled so as to support user interaction;
- d) [means for providing no notification on said user interface of said status of said first object while said first object is executing;
- e)] means for providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on a user interface of said computer, said notification icon being separate from a representation of said first object on said user interface.

REMARKS

The Examiner rejected claims 1-9, 11-21, and 23-58 under 35 USC section 112, second paragraph as being indefinite. Applicant respectfully traverses this rejection.

Regarding claims 1 and 13, the Examiner states that the statement "so as to support user interaction" is a statement of desired result but it is unclear by what step of the method enabling the second object can provide user support for itself. Applicant respectfully disagrees that the above quoted statement is unclear. Step b) recites that the second object is enabled. Step b) goes on to specify the type of enablement. The second object is enabled so that a user can interact with the second object on a user interface. For example, the second object is enabled by presenting its window as the topmost window on a computer screen, with the title bar being highlighted. A user can then type in data, etc. into that window.

The Examiner also states that in step c), in the statement "determining when the first object ceases executing" it is unclear who is determining. In claim 1, the preamble specifies that the method is implemented on a computer. Thus, the computer, when it implements the method, determines when the first object ceases executing. In claim 13, the determination is made by the means in paragraph c).

The Examiner also states that steps c) and d) appear interchanged. In addition, the Examiner states that step d) is a negative limitation. Step d) in conjunction with step e) provided that no status notification was displayed during the execution of the object. However, after execution ended, notification was provided. Claim 1 has been amended to delete step d). This limitation has been positively recited in step e) by stating that the notification icon is suddenly displayed. Claim 13 has been similarly amended.

The Examiner states that step e) is incomprehensible because the statement "said notification icon being separated from said first object" is vague. Claims 1 and 13 have been amended to specify that the notification icon is separate from a representation of the first object on the user interface. For example, the first object can be represented by

an icon or a window. The notification icon is a separate icon from the first object icon or window.

Regarding claims 3 and 15, the Examiner states that it is unclear if the application is a utility or a design patent because the shape of the icon is claimed. A design patent and a utility patent can be issued on the same physical structure. Clark Equipment Company v. Keller, 197 USPQ 83, 121 (D.N.D. 1976). The claims provide a method and an apparatus. Shaping or a shape can be claimed as a limitation in such claims. Applicant submits that the claims are definite as written.

The Examiner rejected claims 1-9, 11-21, and 23-28 under 35 USC 103 as being unpatentable over Green in view of Jaaskelainen. Applicants respectfully traverse this rejection.

Green teaches a multi-tasking computer system. An application program 44 (Fig. 3) can be a window or it can be minimized to an icon 56 (Fig. 4). When the application program is minimized, Green monitors the status of the application program by monitoring if a virtual display buffer, which is associated with the application program, is updated. If the buffer is updated, then the icon representing the application program is changed to an update icon (Fig. 6).

Jaaskelainen teaches a dynamic progress marking icon that shows how a particular task is progressing. As the task progresses, portions of the icon disappear.

Applicant's invention provides a notification as to the status of an object that is executing.

(1) A difference between Applicant's invention and the cited prior art lies in the timing of the status notification. Applicant's invention suddenly displays a notification icon. This notification icon is separate from any representation of the object itself. These aspects of the invention increase the likelihood that the user will immediately see the notification icon.

For example, the Examiner's attention is invited to Fig. 2 of the subject application. The first object is represented by the phone icon 31. The second object 33 is a window that is enabled for user interaction. The user's attention is typically focused on the window 33. When the phone object 37 ceases execution, the notification icon 35

suddenly appears on the screen. This sudden appearance of the notification icon is likely to be seen by the user. Human vision is more apt to see things that move or change, rather than static displays.

Green does not teach this sudden appearance of an icon. Instead, an existing icon is modified from that shown in Fig. 5 of Green to that shown in Fig. 6. The modifications are: 1) the empty screen 70 in Fig. 5 becomes partially filled with a square and 2) the communications link 68 changes shape to item 74. The overall shape of the icon (the screen 70, box 66 and box 60) remains unchanged. Jaaskelainen also teaches modifying an icon, and not changing its overall shape. Such modifications are unlikely to immediately catch the user's eye. Instead, the user must periodically move his eyes from the window, where he is working, to the icon. Also, Applicant's invention provides a notification icon that is separate from the object icon. This further increases the chances of the user seeing the notification icon when it is first displayed.

Claims 3 and 15 provide that the icon is a buoy shaped icon. Neither Green nor Jaaskelainen teach a buoy shaped icon. In fact, both Green and Jaaskelainen teach away from a buoy shaped icon. Green teaches an icon representation of an application program. In Fig. 3, the application program is "PCPrint". When reduced to an icon, the icon is shaped like a printer. Thus, the icon shape conveys information about the application itself. Jaaskelainen teaches an icon that has plural identical elements which can be eliminated as the task progresses. A buoy icon would not be appropriate for Jaaskelainen because it does not have plural identical elements which can be eliminated over time.

Claims 4 and 6 provide that a name of the first object is displayed close to the icon. Because neither Green nor Jaaskelainen teach provide notification icon (a buoy icon) that is separate from an application program itself, there is no suggestion or need to provide a name to the notification icon.

Claims 5 and 17 provide a line between the notification icon and the first object. Because neither Green nor Jaaskelainen teach providing a notification icon that is separate from an application program itself, there is no suggestion to provide a line connecting the application icon and another icon.

Claims 6, 7, 18 and 19 provide enabling and disabling the notification for selective objects. Thus, Applicant's invention allows a user to provide whether a notification icon should be provided at all for a particular object. If notification is enabled for an object, then a notification icon will be displayed. However, if notification is not enabled, then a notification icon will not be displayed. The user cites several portions of Jaaskelainen. But these portions only teach the removal of "percent" signs as the task progresses (see Fig. 2). This is irrelevant as to whether a user can decide if notification should be provided at all for any particular application program.

Claims 8 and 20 provide removing the notification icon from the user interface. Neither Green nor Jaaskelainen teach this.

Claims 9 and 21 provide selecting the notification icon and then focusing the first object to enable the first object for user interaction. Neither Green nor Jaaskelainen teach focusing an object from a notification icon that is separate from the object icon itself. Typically an object is focused by double clicking on the iconized object itself, not on a separate icon.

Claims 25 and 26 are dependent upon claims 9 and 21 and provide that the second object occupancies the entire screen. The second object is a "full screen session", such as is shown in Fig. 4. The first object is obscured by the second object because the second takes up the entire screen. However, the first object can be enabled by selecting the notification icon. The prior art does not teach the combination of a full screen session and a notification icon that suddenly is displayed separately from its object.

Claims 11 and 23 provide that a third object is executed. When the third object ceases execution, a second notification icon is displayed on the user interface. That second notification icon is removed while maintaining a first notification icon on the user interface. Neither Green nor Jaaskelainen teach displaying a second notification icon when a third object ceases executing. Nor do Green or Jaaskelainen teach removing one notification icon while maintaining another notification icon on the user interface.

Claims 12 and 24 provide executing a third object and displaying a second notification icon when the third object ceases executing. The

DEC-07-1995 14:34 FROM WOFF FAILS ZOBAL & MANT TO 17033085359 P.03

7

FAX RECEIVED
DEC 07 1995
GROUP 2300

6/B
N.E.

PATENTS
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X
In Re Application Of :
Johnson, et al. :
Serial No. 08/179,479 : Examiner: Banankhah, M.
Filed: January 10, 1994 : Art Unit: 2316
"BUOY ICON NOTIFICATION OF :
OBJECT INTERFACE ACCESSIBILITY :
IN MULTITASKING COMPUTER :
ENVIRONMENT" :
-----X

AMENDMENT B

Box AF
Assistant Commissioner for
Patents
Washington, D.C. 20231

OFFICIAL

In view of the foregoing, it is submitted that all of the claims in the application are allowable, and such allowance is respectfully requested.

If any additional fees are required, or overpayments made, please charge or credit deposit account no. 09-0453.

Respectfully submitted,

Geoffrey A. Mantooth
Reg. No. 32,042
WOFFORD, FAILS, ZOBAL
& MANTOOTH
110 West Seventh Street, Suite 500
Fort Worth, Texas 76102
(817) 332-1233
(817) 332-5636 FAX

Attorney for Applicant



UNITED STATES DEPARTMENT OF COMMERCE
 Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/179,479	01/10/94	JOHNSON	W DM177

B3M1/1218

GEOFFREY A. MANTOOTH
 WOFFORD, FAILS, ZOBAL & MANTOOTH
 110 WEST SEVENTH, STE. 500
 FORT WORTH, TX 76102

EXAMINER	
ART UNIT	PAPER NUMBER
2316	4

DATE MAILED: 12/18/95

Below is a communication from the EXAMINER in charge of this application
 COMMISSIONER OF PATENTS AND TRADEMARKS

ADVISORY ACTION

THE PERIOD FOR RESPONSE:

- a) is extended to run _____ or continues to run 3 month from the date of the final rejection
- b) expires three months from the date of the final rejection or as of the mailing date of this Advisory Action, whichever is later. In no event however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

Appellant's Brief is due in accordance with 37 CFR 1.192(a).

Applicant's response to the final rejection, filed _____ has been considered with the following effect, but it is not deemed to place the application in condition for allowance:

1. The proposed amendments to the claim and/or specification will not be entered and the final rejection stands because:
- a. There is no convincing showing under 37 CFR 1.116(b) why the proposed amendment is necessary and was not earlier presented.
 - b. They raise new issues that would require further consideration and/or search. (See Note).
 - c. They raise the issue of new matter. (See Note).
 - d. They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.
 - e. They present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE: *In claims 1 and 13, the statement "providing no notification on said user interface of said status of said first object" is deleted and the phrase "suddenly" is added. This raises new issue because the former does not imply the later one.*

2. Newly proposed or amended claims _____ would be allowed if submitted in a separately filed amendment cancelling the non-allowable claims.
3. Upon the filing an appeal, the proposed amendment will be entered will not be entered and the status of the claims will be as follows:

Claims allowed: _____
 Claims objected to: _____
 Claims rejected: 1-9, 11-21, and 23-28

However;

Applicant's response has overcome the following rejection(s): _____

4. The affidavit, exhibit or request for reconsideration has been considered but does not overcome the rejection because _____
5. The affidavit or exhibit will not be considered because applicant has not shown good and sufficient reasons why it was not earlier presented.

The proposed drawing correction has has not been approved by the examiner.
 Other

Kevin A. Kriess
 KEVIN A. KRIESS
 PRIMARY EXAMINER
 GROUP 2300

MAIL ROOM
DATE CANCELLED
JAN 10 1996
PAT. & TRADEMARK OFF.

Corres. and Mail
BOX AF

GP 2316
AC
1-19-94
#9

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X
In Re Application Of :
Johnson, et al. :
Serial No. 08/179,479 :
Filed: January 10, 1994 :
"BUOY ICON NOTIFICATION" :
OBJECT INTERFACE ACCESSIBILITY :
IN MULTITASKING COMPUTER :
ENVIRONMENT" :
-----X

MAIL ROOM
JAN 11 1996
PAT. & TRADEMARK OFF.

:Examiner: Banankhah, M.
:Art Unit: 2316

JAN 18 1996
GROUP 2300

REQUEST FOR EXTENSION OF TIME

Box AF
Commissioner of Patents
and Trademarks
Washington, D. C. 20231

Dear Sir:

Applicant petitions the Commissioner of Patents and Trademarks to extend the time for response to the Office Action dated August 08, 1995 for one additional month from December 08, 1995 to January 08, 1996. A previous extension of time extended the time for response to December 08, 1995.

MG11074 01/16/96 08179479 09-0453 110 116 270.00CH

Please charge deposit account no. 09-0453 for \$270.00 for payment of the request for extension of time. Any deficiency or overpayment should be charged or credited to deposit account no. 09-0453.

Respectfully submitted,


Geoffrey A. Mantooth

Reg. No. 32,042

WOFFORD, FAILS, ZOBAL
& MANTOOTH

110 West Seventh Street, Suite 500

Fort Worth, Texas 76102

(817) 332-1233

(817) 332-5636 Fax

Attorney for Applicants



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SM

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/179,479	01/10/94	JOHNSON	W DM177

B3M1/0315

GEOFFREY A. MANTOOTH
 WOFFORD, FAILS, ZOBAL & MANTOOTH
 110 WEST SEVENTH, STE. 500
 FORT WORTH, TX 76102

BANANKHAH, M	
EXAMINER	
ART UNIT	PAPER NUMBER
2316	10

DATE MAILED: 03/15/96

NOTICE OF ABANDONMENT

This application is abandoned in view of:

- Applicant's failure to respond to the Office letter, mailed 8/18/95.
- Applicant's letter of express abandonment which is in compliance with 37 C.F.R. 1.138.
- Applicant's failure to timely file the response received _____ within the period set in the Office letter.
- Applicant's failure to pay the required issue fee within the statutory period of 3 months from the mailing date of _____ of the Notice of Allowance.
 - The issue fee was received on _____.
 - The issue fee has not been received in Allowed Files Branch as of _____.

In accordance with 35 U.S.C. 151, and under the provisions of 37 C.F.R. 1.316(b), applicant(s) may petition the Commissioner to accept the delayed payment of the issue fee if the delay in payment was unavoidable. The petition must be accompanied by the issue fee, unless it has been previously submitted, in the amount specified by 37 C.F.R. 1.17(l), and a verified showing as to the causes of the delay.

If applicant(s) never received the Notice of Allowance, a petition for a new Notice of Allowance and withdrawal of the holding of abandonment may be appropriate in view of *Delgar Inc. v. Schuyler*, 172 U.S.P.Q. 513.

- Applicant's failure to timely correct the drawings and/or submit new or substitute formal drawings by _____ as required in the last Office action.
 - The corrected and/or substitute drawings were received on _____.
- The reason(s) below.

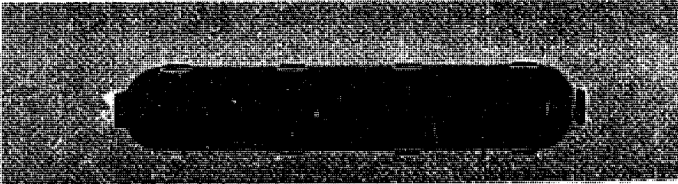
Kevin A. Kriess
 KEVIN A. KRIESS
 PRIMARY EXAMINER
 GROUP 2300

U.S. DEPARTMENT OF COMMERCE - PATENT & TRADEMARK OFFICE										DATE	
PACE DATA ENTRY CODING SHEET										DATE	
1ST EXAMINER <i>B. Moody</i>										DATE <i>2-3-94</i>	
2ND EXAMINER										DATE	
APPLICATION NUMBER <i>08/179479</i>										SHEETS OF DRAWING	
TYPE APPL <i>1</i>										CLASS <i>395</i>	
FILING DATE MONTH <i>1</i> DAY <i>1</i> YEAR <i>94</i>										GROUP ART UNIT <i>2368</i>	
SPECIAL HANDLING <i>φ</i>										ATTORNEY DOCKET NUMBER	
SMALL ENTITY? <i>φ</i>										<i>DM177</i>	
FOREIGN LICENSE <i>W</i>											
FILING FEE <i>798</i>											
INDEPENDENT CLAIMS <i>2</i>											
TOTAL CLAIMS <i>24</i>											

CONTINUITY DATA			
PARENT APPLICATION SERIAL NUMBER	PARENT PATENT NUMBER	PARENT FILING DATE MONTH DAY YEAR	PARENT FILING DATE MONTH DAY YEAR
0			
0			
0			
0			
0			

PCT/FOREIGN APPLICATION DATA			
PCT/FOREIGN APPLICATION SERIAL NUMBER	PCT/FOREIGN APPLICATION SERIAL NUMBER	FOREIGN PRIORITY CLAIMED	FOREIGN FILING DATE MONTH DAY YEAR

PATENT APPLICATION FEE DETERMINATION RECORD					Application or Docket Number <i>179479</i>	
Effective October 1, 1992						
CLAIMS AS FILED - PART I					SMALL ENTITY OR OTHER THAN SMALL ENTITY	
		(Column 1)			(Column 2)	
FOR		NUMBER FILED		NUMBER EXTRA	RATE	FEE
BASIC FEE						\$355.00
TOTAL CLAIMS		<i>24</i> minus 20 = *		<i>4</i>	x\$11=	OR x\$22= <i>88</i>
INDEPENDENT CLAIMS		<i>2</i> minus 3 = *			x 37=	OR x 74=
MULTIPLE DEPENDENT CLAIM PRESENT					+115=	OR +230=
					TOTAL	OR TOTAL <i>798</i>
* If the difference in column 1 is less than zero, enter "0" in column 2						
CLAIMS AS AMENDED - PART II					SMALL ENTITY OR OTHER THAN SMALL ENTITY	
		(Column 1)	(Column 2)	(Column 3)		
AMENDMENT A	<i>a</i>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total	* <i>26</i>	Minus	** 24	= <i>2</i>	x\$11=
	Independent	* <i>2</i>	Minus	*** <i>3</i>	=	x 37=
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM					+ 115=
					TOTAL ADDIT. FEE	OR TOTAL ADDIT. FEE
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".						
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						



SEARCHED			
Class	Sub.	Date	Exmr.
395	650 800 159	Feb, 3, 95	MB
364	521 724 721	Feb, 3, 95	MB
395 364	650 800 200	Aug 2, 95	
395	800 159 650	9/29/97	MB
364	521 724 721	9/19/97	MB

SEARCH NOTES		
	Date	Exmr.
AP Search	9/29/97	MB
Consulted with Ex. Kat bob	9/29/97	MB
APS search	6/5/98	MB
WOT search	4/12/02	MB

INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.
709	100 101 102 103 105	4/12/02	MB
345	839 771	4/21/02 "	MB "

(RIGHT OUTSIDE)

Staple Issue Slip Here

POSITION	ID NO.	DATE
CLASSIFIER		
EXAMINER	942	2-19-96
TYPIST	318	2-20-96
VERIFIER		
CORPS CORR.		
SPEC. HAND		
FILE MAINT.		
DRAFTING		

480


INDEX OF CLAIMS

Claim	Final	Original	Date
1	1	30	9/27
2	2	31	10/1
3	3	32	10/1
4	4	33	10/1
5	5	34	10/1
6	6	35	10/1
7	7	36	10/1
8	8	37	10/1
9	9	38	10/1
10	11	39	10/1
11	12	40	10/1
12	13	41	10/1
13	14	42	10/1
14	15	43	10/1
15	16	44	10/1
16	17	45	10/1
17	18	46	10/1
18	19	47	10/1
19	20	48	10/1
20	21	49	10/1
21	23	50	10/1
22	24	51	10/1
23	25	52	10/1
24	26	53	10/1
25	29	54	10/1
26	30	55	10/1
27	31	56	10/1
28	32	57	10/1
29	33	58	10/1
30	34	59	10/1
31	35	60	10/1
32	36	61	10/1
33	37	62	10/1
34	38	63	10/1
35	39	64	10/1
36	40	65	10/1
37	41	66	10/1
38	42	67	10/1
39	43	68	10/1
40	44	69	10/1
41	45	70	10/1
42	46	71	10/1
43	47	72	10/1
44	48	73	10/1
45	49	74	10/1
46	50	75	10/1

Claim	Final	Original	Date
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			

SYMBOLS
 ✓ Rejected
 = Allowed
 - (Through numeral) Canceled
 + Restricted
 N Non-elected
 I Interference
 A Appeal
 O Objected

(LEFT INSIDE)

BAR CODE LABEL		U.S. PATENT APPLICATION			
					
SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT		
08/586,149	01/11/96	395	2316		
APPLICANT	WILLIAM J. JOHNSON, FLOWER MOUND, TX; LARRY M. LACHMAN, IRVING, TX; MICHAEL D. SMITH, IRVING, TX.				
	CONTINUING DATA*** VERIFIED THIS APPLN IS A CON OF 08/179,479 01/10/94 <hr/>				
FOREIGN/PCT APPLICATIONS*** VERIFIED <hr/>					
FOREIGN FILING LICENSE GRANTED 02/20/96					
STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS	FILING FEE RECEIVED	ATTORNEY DOCKET NO.
TX	11	27	2	\$904.00	DM-177
ADDRESS	GEOFFREY A MANTOOTH WOFFORD FAILS ZOBAL AND MANTOOTH 110 WEST SEVENTH SUITE 500 FORT WORTH TX 76102				
	TITLE	BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN MULTITASKING COMPUTER ENVIRONMENT			
This is to certify that annexed hereto is a true copy from the records of the United States Patent and Trademark Office of the application which is identified above. By authority of the COMMISSIONER OF PATENTS AND TRADEMARKS					
Date	Certifying Officer				

08/586149

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

330 SD 09-0453 02/07/96 08586149
33014 101 904.00CH DM177

PTO-1556
(5/87)



Alger
586149

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No. DM-177
Anticipated Classification of
this application:
Class 395 Subclass _____
Prior Application:
Examiner: Banankhah
Art Unit: 2316

Box FWC
Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

FILE WRAPPER CONTINUING APPLICATION (FWC)

I. This is a request for a filing under the file wrapper continuing application procedure, 37 CFR 1.62, for a

- continuation
- divisional
- continuation-in-part (for oath or declaration see II below)
- attached is an amendment for added subject matter

of the prior application

- (1) Serial No. 08/179,479
- (2) Filed on January 10, 1994
- (3) Title (as originally filed BUOY ICON NOTIFICATION
and as last amended) OF OBJECT INTERFACE
ACCESSIBILITY IN MULTITASKING
COMPUTER ENVIRONMENT
- (4) By the following inventors:

1-00
William J. Johnson
1445 Sedalia Drive *TX*
Flower Mound, TX 75028

3-00
Michael D. Smith
9006 Cumberland Drive
Irving, TX 75063
TX

2-00
Larry M. Lachman
6304 N. MacArthur Blvd. #1019
Irving, TX 75039
TX

(6) Identification of prior foreign application and any priority claim under 35 U.S.C. 119 _____

II. Declaration or oath

A. Continuation or divisional

 X none required

B. Continuation-in-part

 attached

 an original a facsimile

 executed by

 inventor(s)

 legal representative of inventor(s)
37 CFR 1.42 or 1.43

 joint inventor or person showing a
proprietary interest for inventor
who refused to sign or cannot be
reached. 37 CFR 1.47;

 petition and statement required by
37 CFR 1.47 is also attached. See
item V below for fee.

 not attached

Application is made by a person authorized
under 37 CFR 1.41(c) on behalf of all of the
above named applicant(s). The declaration or
oath, along with the surcharge required by
37 CFR 1.16(e) can be filed subsequently.

 showing that the filing is authorized.
(Not required unless called into
question. 37 CFR 1.41 (d))

III. Fee Calculation

The fees to be charged are to be based on the number
of claims remaining as a result of the

 X attached preliminary amendment

 the unentered amendment filed under 37
CFR 1.116 in the prior application, which
is now repeated

 the claims on file in the prior application

CLAIMS FOR FEE CALCULATION

Number Filed	Number Extra**	Rate	Basic Fee
			\$750.00
Total Claims	27 -20=	7 x 22 **	154.00
Independent Claims	2 -3=	-0- x -0- **	-0-
Multiple dependent claim(s) if any			

The fee for extra claims is not being paid at this time.**

Filing fee calculation \$ 904.00

IV. Small Entity Statement***

A verified statement that this is a filing by a small entity is attached.

Filing fee calculation (50% of above) \$ _____

V. Fee Payment Being Made At This Time

Not attached

No filing fee is submitted. This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.

Attached

Filing fee \$ 904.00

Recording assignment (\$ 7.00; 37 CFR 1.21(h)(i)) \$ _____

petition fee for filing by other than all the inventors or person not the inventor where inventor refused to sign or cannot be reached. 37 CFR 1.47 and 1.17(h) \$ _____

Total fees enclosed \$ _____

VI. Method of Payment of Fees

attached is check in the amount of \$ _____

charge Account No. 09-0453

VII. Authorization to Charge Additional Fees

X The Commissioner is hereby authorized to charge the following addition fees which may be required to Account No. 09-0453

- X 37 CFR 1.16 (filing fees and presentation of extra claims)
- X 37 CFR 1.17 (application processing fee)
- X 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b).****)

A duplicate of this request is attached.

VIII. Instructions As to Overpayment

X credit Account No. 09-0453 _____ Refund

IX. Priority - 35 U.S.C. 119

_____ Priority of application serial no. _____
filed on _____ in _____
is claimed under 35 U.S.C. 119.

_____ The certified copy has been filed in prior
application serial no. _____ filed
_____.

X. Relate Back - 35 U.S.C. 120

X Amend the specification by inserting before the first line the sentence:

This is a X continuation
_____ divisional
_____ continuation-in-part

of co-pending application serial no. 08/179,479
filed January 10, 1994.

XI. Assignment

X the prior application is assigned of record to
International Business Machines Corporation
_____ an assignment of the invention to _____

_____ is attached.

XII. Power of Attorney

The power of attorney in the prior application is to

A. Bruce Clay, Reg. No. 32,121	John E. Hoel, Reg. No. 26,279
Jonathan E. Jobe, Reg. No. 28,429	Arthur F. Zobal, Reg. No. 20,616
William Ellis, Reg. No. 26,874	Geoffrey A. Mantooth, Reg. No. 32,042
Prentiss W. Johnson, Reg. No. 33,123	David A. Mims, Jr., Reg. No. 32,708

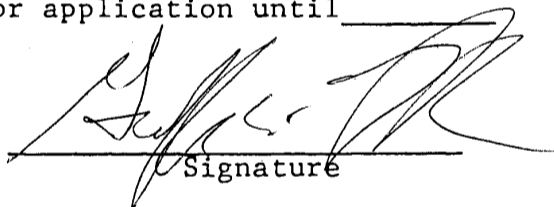
- a. The power appears in the original papers in the prior application
- b. Since the power does not appear in the original papers, a copy of the power in the prior application is attached.
- c. A new power has been executed and is attached.
- d. Address all future communications to
Geoffrey A. Mantooth
Wofford, Fails, Zóbal & Mantooth
110 West Seventh, Suite 500
Fort Worth, Texas 76102

(May only be completed by applicant, or attorney or agent of record).

XIII. Maintenance of Copendency of Prior Application

A petition, fee and response has been filed to extend the term in the pending prior application until January 08, 1996.

January 8, 1996
Date


Signature

P.O. Address of signatory
 Geoffrey A. Mantooth
 WOFFORD, FAILS, ZOBAL
 & MANTOOTH
 110 W. 7th Street, Ste. 500
 Fort Worth, Texas 76102

- Inventor
- Assignee of complete interest
- Attorney or agent of record
- Filed under Rule 34(a)

Telephone No. (817) 332-1233
 (817) 332-5636 FAX

Reg. No. 32,042
 (if applicable) |



JAN 16 1996
PATENTS
GROUP 2300

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

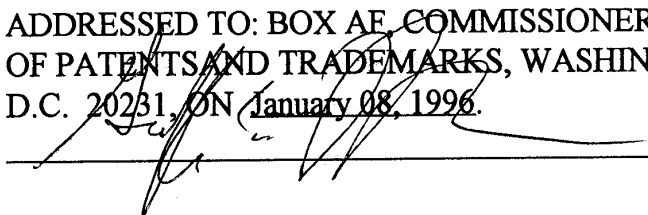
-----X

In Re Application Of	:
Johnson, et al.	:
Serial No. 08/179,479	:Examiner: Banankhah, M.
Filed: January 10, 1994	:Art Unit: 2316
"BUOY ICON NOTIFICATION OF	:
OBJECT INTERFACE ACCESSIBILITY	:
IN MULTITASKING COMPUTER	:
ENVIRONMENT"	:

-----X

EXPRESS MAIL CERTIFICATE

"EXPRESS MAIL" LABEL NO. TB705281632US
 I HEREBY CERTIFY THAT I DEPOSITED THIS
 CORRESPONDENCE WITH THE UNITED STATES
 POSTAL SERVICE "EXPRESS MAIL POST OFFICE
 TO ADDRESSEE" SERVICE UNDER 37 CFR 1.10
 ADDRESSED TO: BOX AE, COMMISSIONER
 OF PATENTS AND TRADEMARKS, WASHINGTON,
 D.C. 20231, ON January 08, 1996.





UNITED STATE DEPARTMENT OF COMMERCE
Patent and Trademark Office
 ASSISTANT SECRETARY AND COMMISSIONER
 OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

FROM : Sallye M. Rayford, Manager.
 Correspondence & Mail Division

SUBJECT: Receipt of Papers and Fees File Under 37 CFR 1.10 By
Express Mail

The filing date of 1-11-96 is the correct date. The date on the Express Mail label under 37 CFR 1.10 is 1-8-96. On that date the PTO was closed all day due to _____ adverse weather conditions (authorized by Office of Personnel Management) or a _____ normally scheduled Federal holiday within the District of Columbia. In accordance with 37 CFR 1.6 the papers have been stamped with the next succeeding day which is not a Saturday, Sunday or Federal holiday within the District of Columbia. The provision of 35 U.S.C. 21 (b) apply.

The papers were not stamped with the date on the certificate of mailing by Express Mail because the date on the certificate does not coincide with the date of deposit on the Express Mail label which the PTO takes as evidence of when the package was mailed.

Date on certificate of mailing by Express Mail is _____.

Date on Express Mail label is _____.

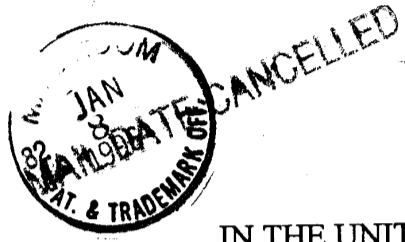
Date of receipt in PTO is _____.

Therefore, the filing date is _____.

The papers are not entitled to the benefits of 37 CFR 1.10 because:

SIGNED: J. H. Dringen
 DATE : 1-11-96

11/c
3/27/96



PATENTS
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X
In Re Application Of :
Johnson, et al. :
Serial No. :Examiner:
Filed: :Art Unit:
"BUOY ICON NOTIFICATION OF :
OBJECT INTERFACE ACCESSIBILITY :
IN MULTITASKING COMPUTER :
ENVIRONMENT" :
-----X

PRELIMINARY AMENDMENT

Box FWC
Commissioner of Patents
and Trademarks
Washington, D. C. 20231

Dear Sir:

Please amend the above identified patent application as follows.

IN THE CLAIMS

Please amend claims 1 and 13 as follows.

C1
Sub D1

1. (Twice Amended) A method that is implemented on a multitasking computer that comprises first and second objects, said method providing notification of a status of said first object on said computer, comprising the steps of:
- a) executing said first object on said computer;
 - b) while said first object is executing, enabling said second object so as to support user interaction with said second object on a user interface of said computer;

C

- c) while said second object is enabled so as to support user interaction, determining when said first object ceases executing;
- d) [while said first object is executing, providing no notification on said user interface of said status of said first object;
- e)] providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on a user interface of said computer, said notification icon being separate from a representation of said first object on said user interface.

13. (Twice Amended) An apparatus for use with a multitasking computer, said computer comprising first and second objects, said apparatus providing notification of a status of said first object on said computer, comprising:

- a) means for executing said first object on said computer;
- b) means for enabling said second object so as to support user interaction with said second object on a user interface of said computer while said first object is executing;
- c) means for determining when said first object ceases executing while said second object is enabled so as to support user interaction;
- d) [means for providing no notification on said user interface of said status of said first object while said first object is executing;
- e)] means for providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on a user interface of said computer, said notification icon being separate from a representation of said first object on said user interface.

Please add new claim 29.

²⁵
29. The method of claim 1 wherein the step of suddenly displaying a notification icon on a user interface further comprises the step of causing said displayed notification icon to pulse.

REMARKS

This application is a file wrapper continuation of parent application, serial no. 08/179,749, filed January 10, 1994, which parent application received a Final Office Action.

Claims 1-9, 11-21, and 23-29 are in this application.

In the parent application, the Examiner rejected claims 1-9, 11-21, and 23-28 under 35 USC section 112, second paragraph as being indefinite. Applicant respectfully traverses this rejection.

Regarding claims 1 and 13, the Examiner states that the statement "so as to support user interaction" is a statement of desired result but it is unclear by what step of the method enabling the second object can provide user support for itself. Applicant respectfully disagrees that the above quoted statement is unclear. Step b) recites that the second object is enabled. Step b) goes on to specify the type of enablement. The second object is enabled so that a user can interact with the second object on a user interface. For example, the second object is enabled by presenting its window as the topmost window on a computer screen, with the title bar being highlighted. A user can then type in data, etc. into that window.

The Examiner also states that in step c), in the statement "determining when the first object ceases executing" it is unclear who is determining. In claim 1, the preamble specifies that the method is implemented on a computer. Thus, the computer, when it implements the method, determines when the first object ceases executing. In claim 13, the determination is made by the means in paragraph c).

The Examiner also states that steps c) and d) appear interchanged. In addition, the Examiner states that step d) is a negative limitation. Step d) in conjunction with step e) provided that no status notification was displayed during the execution of the object. However, after execution ended, notification was provided. Claim 1 has been amended to delete step d). This limitation has been positively recited in step e) by stating that the notification icon is suddenly displayed. Claim 13 has been similarly amended.

The Examiner states that step e) is incomprehensible because the statement "said notification icon being separated from said first object" is vague. Claims 1 and 13 have been amended to specify that the notification icon is separate from a representation of the first object on the user interface. For example, the first object can be represented by an icon or a window. The notification icon is a separate icon from the first object icon or window.

Regarding claims 3 and 15, the Examiner states that it is unclear if the application is a utility or a design patent because the shape of the icon is claimed. A design patent and a utility patent can be issued on the same physical structure. Clark Equipment Company v. Keller, 197 USPQ 83, 121 (D.N.D. 1976). The claims provide a method and an apparatus. Shaping or a shape can be claimed as a limitation in such claims. Applicant submits that the claims are definite as written.

In the parent application, the Examiner rejected claims 1-9, 11-21, and 23-28 under 35 USC 103 as being unpatentable over Green in view of Jaaskelainen. Applicants respectfully traverse this rejection.

Green teaches a multi-tasking computer system. An application program 44 (Fig. 3) can be a window or it can be minimized to an icon 56 (Fig. 4). When the application program is minimized, Green monitors the status of the application program by monitoring if a virtual display buffer, which is associated with the application program, is updated. If the buffer is updated, then the icon representing the application program is changed to an update icon (Fig. 6).

Jaaskelainen teaches a dynamic progress marking icon that shows how a particular task is progressing. As the task progresses, portions of the icon disappear.

Applicant's invention provides a notification as to the status of an object that is executing.

A difference between Applicant's invention and the cited prior art lies in the timing of the status notification. Applicant's invention suddenly displays a notification icon. This notification icon is separate from any representation of the object itself. These aspects of the invention increase the likelihood that the user will immediately see the notification icon.

For example, the Examiner's attention is invited to Fig. 2 of the subject application. The first object is represented by the phone icon 31. The second object 33 is a window that is enabled for user interaction. The user's attention is typically focused on the window 33. When the phone object 37 ceases execution, the notification icon 35 suddenly appears on the screen. This sudden appearance of the notification icon is likely to be seen by the user. Human vision is more apt to see things that move or change, rather than static displays.

Green does not teach this sudden appearance of an icon. Instead, an existing icon is modified from that shown in Fig. 5 of Green to that shown in Fig. 6. The modifications are: 1) the empty screen 70 in Fig. 5 becomes partially filled with a square and 2) the communications link 68 changes shape to item 74. The overall shape of the icon (the screen 70, box 66 and box 60) remains unchanged. Jaaskelainen also teaches modifying an icon, and not changing its overall shape. Such modifications are unlikely to immediately catch the user's eye. Instead, the user must periodically move his eyes from the window, where he is working, to the icon.

Also, Applicant's invention provides a notification icon that is separate from the object icon. This further increases the chances of the user seeing the notification icon when it is first displayed. Green modifies the object icon itself.

Claims 3 and 15 provide that the icon is a buoy shaped icon. Neither Green nor Jaaskelainen teach a buoy shaped icon. In fact, both Green and Jaaskelainen teach away from a buoy shaped icon. Green teaches an icon representation of an application program. In Fig. 3, the application program is "PCPrint". When reduced to an icon, the icon is shaped like a printer. Thus, the icon shape conveys information about the application itself. Jaaskelainen teaches an icon that has plural identical elements which can be eliminated as the task progresses. A buoy icon would not be appropriate for Jaaskelainen because it does not have plural identical elements which can be eliminated over time.

Applicants' invention provides a standard icon for notification. By using a buoy shaped icon, the user immediately knows upon seeing the buoy, that a notification is occurring.

Claims 4 and 6 provide that a name of the first object is displayed close to the icon. Because neither Green nor Jaaskelainen teach provide notification icon (a buoy icon) that is separate from an application program itself, there is no suggestion or need to provide a name to the notification icon.

Claims 5 and 17 provide a line between the notification icon and the first object. Because neither Green nor Jaaskelainen teach providing a notification icon that is separate from an application program itself, there is no suggestion to provide a line connecting the application icon and another icon.

Claims 6, 7, 18 and 19 provide enabling and disabling the notification for selective objects. Thus, Applicant's invention allows a user to provide whether a notification icon should be provided at all for a particular object. If notification is enabled for an object, then a notification icon will be displayed. However, if notification is not enabled, then a notification icon will not be displayed. The user cites several portions of Jaaskelainen. But these portions only teach the removal of "percent" signs as the task progresses (see Fig. 2). This is irrelevant as to whether a user can decide if notification should be provided at all for any particular application program.

Claims 8 and 20 provide removing the notification icon from the user interface. Neither Green nor Jaaskelainen teach this.

Claims 9 and 21 provide selecting the notification icon and then focusing the first object to enable the first object for user interaction. Neither Green nor Jaaskelainen teach focusing an object from a notification icon that is separate from the object icon itself. Typically an object is focused by double clicking on the iconized object itself, not on a separate icon.

Claims 25 and 26 are dependent upon claims 9 and 21 and provide that the second object occupies the entire screen. The second object is a "full screen session", such as is shown in Fig. 4. The first object is obscured by the second object because the second takes up the entire screen. However, the first object can be enabled by selecting the notification icon. The prior art does not teach the combination of a full screen session and a notification icon that suddenly is displayed separately from its object.

In fact, neither Green nor Jaaskelainen can provide notice while the user is working on a full screen session. This is because both require some space around the active window, which space is used to display the inactive icon used for notice.

Claims 11 and 23 provide that a third object is executed. When the third object ceases execution, a second notification icon is displayed on the user interface. That second notification icon is removed while maintaining a first notification icon on the user interface. Neither Green nor Jaaskelainen teach displaying a second notification icon when a third object ceases executing. Nor do Green or Jaaskelainen teach removing one notification icon while maintaining another notification icon on the user interface.

Claims 12 and 24 provide executing a third object and displaying a second notification icon when the third object ceases executing. The second notification icon is selected, wherein the third object is focused on the user interface. Neither Green nor Jaaskelainen provide focusing an object from a notification icon itself.

Claims 27 and 28 provide that the notification icon is displayed in a first location on a user interface and the first object is displayed in a separate second location. The cited portions of Green discuss modifying an icon from a no-update icon to an update icon. The Green icons are displayed in the same location on the screen. Applicant's invention provides that the notification icon is spaced apart from the object icons. For example, in Fig. 2 of the application, Green would update the phone icon 31 by changing its appearance. Applicant's invention displays the buoy icon 35 in a different place on the screen (about two inches away in Fig. 2).

New claim 29 is dependent upon claim 1 and further provides that the notification icon, when displayed, pulses. This further catches the attention of the user.

In view of the foregoing, it is submitted that all of the claims in the application are allowable, and such allowance is respectfully requested.

If any additional fees are required, or overpayments made, please charge or credit deposit account no. 09-0453.

Respectfully submitted,


Geoffrey A. Mantooth

Reg. No. 32,042

WOFFORD, FAILS, ZOBAL
& MANTOOTH

110 West Seventh Street, Suite 500

Fort Worth, Texas 76102

(817) 332-1233

(817) 332-5636 FAX

Attorney for Applicant



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER 08/506,149	FILING DATE 01/11/96	FIRST NAMED APPLICANT JOHNSON	ATTY. DOCKET NO. W DM-177
----------------------------------	-------------------------	----------------------------------	------------------------------

EXAMINER

ESM1/1006

GEOFFREY A MANTOOTH
WOFFORD FAILS ZOBAL AND MANTOOTH
110 WEST SEVENTH
SUITE 500
FORT WORTH TX 76102

BANANKHAN, M	
ART UNIT 2316	PAPER NUMBER 12

DATE MAILED: 10/06/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

- Responsive to communication(s) filed on Jan. 8, 1996
- This action is **FINAL**.
- Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire - 3 - month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- Claim(s) 1-9, 11-21, 23-28, 29 is/are pending in the application.
- Of the above, claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 1-9, 11-21, 23-29 is/are rejected.
- Claim(s) _____ is/are objected to.
- Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - All Some* None of the CERTIFIED copies of the priority documents have been
 - received.
 - received in Application No. (Series Code/Serial Number) _____
 - received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- Notice of Reference Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s) _____
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

Serial Number: 08/586149

Page 2

Art Unit: 2316

1. This action is in response to paper number 11, amendment C, which was received Jan 8, 1996. Claims 1-9, 11-21, and 23-28 are presented for examination.

2. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior Office action.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 1-2, 4, 9, 11-14, 16, 21, 23-28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Green et al. (U.S.Pat. No. 5,333,256).

Per claims 1 and 13, Green et al. disclose:

a multi-tasking computer (multitasking, col. 1, line 20), first and second objects (several application programs simultaneously, col. 1, line 21), notification of status of the

Serial Number: 08/586149

Page 3

Art Unit: 2316

second object (second icon updated responsive to change of status of the application, col. 1, lns. 65-68, continued on col. 2, lines 1-9), (a) and (b) executing first object (one or more application the user can select to be executed, col. 2, lines 47-68, continued on col. 3, lns. 1-2, and lns. 3-29); (c) determining when the first application ceases execution (when the application program completes its assigned task, col. 1, line 21, col. 4, lines 48-51); (d) providing a notification suddenly and separate from the a representation of the first object on the user interface (when the application program completes its assigned task, displays the update icon 62 on the screen of the display device, col. 4, lines 38-63, Fig.5, and Fig.6).

Per claim 2, and 14, Green, in col. 2, lines 4-8, teach of determining when first object provide **prompt for a user input**, col 4, lines 26-31.

Per claim 4, and 16, Green teach providing notification icon that is separate from the application program, and provide a **name** to the notification icon (Fig. 4, element 56).

Per claim 9, and 21, Green teach of the case when the

Serial Number: 08/586149

Page 4

Art Unit: 2316

notification icon is selected and user interface is prompted for **a user input**, col. 4, lines 48-51.

Per claim 11-12, and 23-24, Green in the background of the invention teach of a multi-tasking operating system and the fact that a user may execute several application programs simultaneously, and later he teach of association of each of the application programs with a respective window. Removing notification icon on a user interface in Green's teaching is not limited to one application and one notification icon.

Per claim 25-26, the reference of Green teach of minimizing iconic representation on the user interface (minimized application program, col. 1, lns 44-59, also col. 4, lns. 32-37).

Per claim 27-28, the reference of Green in col. 4, lns. 38-63, teach of display unit 72, and the update icon 62 which are separate from each other.

Per claim 29, it is well known in the art to make a pulsating or flashing icon to draw users attention and/or distinguish it from other icons.

Serial Number: 08/586149

Page 5

Art Unit: 2316

5. Claims 3, 5-8, 15, and 17-20 are rejected under 35 U.S.C. § 103 as being unpatentable over Green et al. (U.S.Pat. No. 5,333,256).

As to the limitation of claims 3, and 15, the reference of Green et al. does not exclude any specific shape, therefore, it would be obvious to design the icon in any shape including a buoy shaped icon. The shape of the icon is a design choice.

Per claims 5, and 17, the reference of Green show a change in the virtual display buffer and in association with the selected application program. The association is not a line, however, since Green does not limit the association with the shape he has selected (Fig. 6, element 74), it would be obvious to include a line as the link between display unit (72) and the update icon (62).

As to the limitation in claims 6, 7, 8, 18, 19, and 20, it is well known to provide the user with the option of enabling or disabling representation of a tool on the user interface for a specific application.

6. Applicant on page 5, lines 9-11 of his Remarks, argue that

Serial Number: 08/586149

Page 6

Art Unit: 2316

"Green does not teach this sudden appearance". In response thereto, applicants attention is respectfully directed to col. 7, lines 15-18, where Green teach of **"In response to the completion of the assigned task, the display of the update icon immediately inform the user of the change of status of the application program"**, which clearly indicate the indication is sudden. Later on lns. 23-32, applicant argue that Green does not teach of a Buoy icon. As it is indicated in the rejection of the claims 3, and 15 under 35 US 103, part 5 of this office action, the shape of the icon is developers design choice. Applicant on page argue that Green does not teach notification icon which is separate from an application program itself, and there is no suggestion or need to provide name to the notification icon. In response it must be pointed out that comparison of Figs 5 and 6 shows that element 60 and 62 are not changed however, the display unit 70, is changed to 72 which indicate to the user that the application 60/62 has completed its task. Regarding the name to the notification icon, it is well known in the art to assign a name to the icon as it is indicated in Fig. 4, element 56 (printer).

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Serial Number: 08/586149

Page 7

Art Unit: 2316

See PTO 892 for pertinent references.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Majid A. Banankhah whose telephone number is (703) 308-6903.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Majid Banankhah

Majid Banankhah

September 30, 1997



#13
JEM
3-25-98

PATENTS
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X
 In Re Application Of :
 Johnson, et al. :
 Serial No. 08/586,149 : Examiner: Banankhan, M.
 Filed: January 11, 1996 :
 "BUOY ICON NOTIFICATION OF : Art Unit: 2316
 OBJECT INTERFACE ACCESSIBILITY :
 IN MULTITASKING COMPUTER :
 ENVIRONMENT" :
 -----X

RECEIVED
MAR 20 98
GROUP 2600

REQUEST FOR EXTENSION OF TIME

Fort Worth, Texas 76102

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

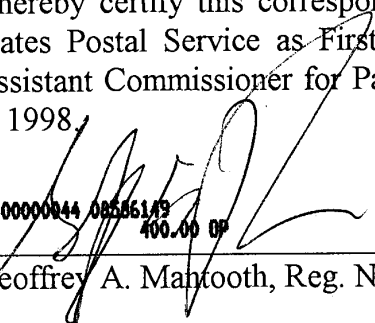
Applicant petitions the Assistant Commissioner for Patents to extend the time for response to the Office Action dated October 6, 1997 for two months from January 6, 1998 to March 6, 1998.

CERTIFICATE OF MAILING

I hereby certify this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on March 6, 1998.

03/16/1998 EKURTZ
01 FC:116

0000044 08586149
400.00 09



Geoffrey A. Mantooth, Reg. No. 32,042



Enclosed is a check in the amount of \$400.00 for payment of the request for extension. If any additional fees are required, or overpayments made, please charge or credit deposit account number 09-0453.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "G. Mantooth".

Geoffrey A. Mantooth, Reg. No. 32,042
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 West Seventh Street, Suite 500
Fort Worth, Texas 76102
(817) 332-1233 Telephone
(817) 332-5636 Fax

Attorney for Applicants



*gp 2316 \$
2755*

PATENTS
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*14/D
gicm
3-25-98*

-----X
 In Re Application Of :
 Johnson, et al. :
 Serial No. 08/586,149 : Examiner: Banankhan, M.
 Filed: January 11, 1996 :
 "BUOY ICON NOTIFICATION OF : Art Unit: 2316
 OBJECT INTERFACE ACCESSIBILITY :
 IN MULTITASKING COMPUTER :
 ENVIRONMENT" :
 -----X

AMENDMENT B

Assistant Commissioner for
Patents
Washington, D.C. 20231

RECEIVED
MAR 20 98
GROUP 2600

Dear Sir:

Responsive to the Office Action mailed October 6, 1997, please amend the above identified patent application as follows.

CERTIFICATE OF MAILING

I hereby certify this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on March 6, 1998.



Geoffrey A. Mantooth, Reg. No. 32,042

d

IN THE CLAIMS

Please amend claims 1 and 13 as follows.

1. (Thrice Amended) A method that is implemented on a multitasking computer that comprises first and second objects, said method providing notification of a status of said first object on said computer, comprising the steps of:

a) providing a representation of said first object on a user interface of said computer, with the representation supporting user interaction with said first object on said user interface of said computer;

[a)] b) executing said first object on said computer;

[b)] c) while said first object is executing, enabling said second object so as to support user interaction with said second object on [a] said user interface of said computer;

[c)] d) while said second object is enabled so as to support user interaction, determining when said first object ceases executing;

[d)] e) providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on [a] said user interface of said computer while maintaining the representation of the first object, said notification icon being in a location that is separate from [a] the representation of said first object on said user interface.

¹² 13. (Thrice Amended) An apparatus for use with a multitasking computer, said computer comprising first and second objects, said apparatus providing notification of a status of said first object on said computer, comprising:

a) means for providing a representation of said first object on a user interface of said computer, with the representation supporting user interaction with said first object on said user interface of said computer;

[a)] b) means for executing said first object on said computer;

[b)] c) means for enabling said second object so as to support user interaction with said second object on a user interface of said computer while said first object is executing;

2 30

d

[c] d) means for determining when said first object ceases executing while said second object is enabled so as to support user interaction;

D2
[d] e) means for providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on [a] said user interface of said computer while maintaining the representation of the first object, said notification icon being in a location that is separate from [a] the representation of said first object on said user interface.

Please cancel claims 27 and 28.

REMARKS

In the Office Action dated October 6, 1997, the Examiner rejected claims 1-2, 4, 9, 11-14, 16, 21 and 23-29 under 35 U.S.C. 102(e) as being anticipated by Green, et al. Applicants respectfully traverse this rejection.

Claims 1 and 13, as amended, provide a method and apparatus for providing notification of a status of a first object on a computer. A representation of the first object is provided on a user interface of the computer, with the representation supporting user interaction with the first object. The first object is executed on the computer, and while executing, a second object is enabled so as to support user interaction therewith. A determination is made when the first object ceases executing. A notification is provided on the user interface when the first object ceases executing by suddenly displaying a notification icon on the user interface while maintaining the representation of the first object. The notification icon is in a location that is separate from the representation of the first object on the user interface.

Green does not teach several elements of these claims. First, Green does not teach providing a notification icon that is in a location that is separate from the representation of the first object on the user interface. Second, Green does not teach providing a notification on the user interface by suddenly displaying the notification icon while maintaining the representation of the first object.

The Examiner asserts that Green teaches suddenly displaying a notification icon and having the notification icon separate from the representation of the first object. Applicants respectfully disagree. Regarding the suddenness issue, the Examiner is correct in saying that Green teaches that the display of the update icon immediately informs the user (col. 7, lines 15-18). However, Green merely updates an existing icon. That icon is not separate from the object representation, rather it is the representation in and of itself.

To understand how Green works, a brief description is given. As shown in Fig. 3 of Green, a user can interact with the topmost application window 44 (col. 4, lines 17-20). When the user wishes to change windows, each overlaying window must be removed or minimized (col. 4, lines 20-23). When an application window is minimized, it becomes an icon (col. 4, lines 23-26). Minimizing the application window to an icon does not interfere with the execution of the application (col. 4, lines 26-31).

When an application window is minimized, it is displayed as a no-update icon (col. 5, lines 2-5). The no-update icon is replaced by an update icon when the application finishes an action (col. 5, lines 5-20). Alternatively, the icon can change color (col. 5, lines 40-68).

Thus, Green does not notify a user of an object's status by suddenly displaying a notification icon that is separate from the object's representation. Instead, Green provides notification of a change in status by changing the icon (either by replacing it or by changing its color).

Applicants' invention has several practical advantages over Green. As Green itself shows in Figs. 3 and 4, icons are typically located at the bottom or along an edge of a monitor. The icons are thus located away from the active window 44 or 46. Consequently, merely changing the icon may be insufficient to catch the attention of the user. Applicants' invention causes an icon to suddenly appear in a location that is separate from the object's icon. This sudden appearance in a new location on the user interface is more likely to catch the user's attention.

Furthermore, icons are small (by definition they are minimized applications). Merely changing an icon may be difficult for the user to see. Displaying a new icon for notification is much easier to see. The user need only recognize the existence of the icon, rather than some feature of it.



Furtherstill, with Green, a user must remember how the icon is changed. This requires more user training, especially if a large number of icons are used. In the example given by Green, the change in icons between Fig. 5 and Fig. 6 is slight. The user must remember what this change is and remember which icon is the no-update icon and which icon is the update icon. Each icon could have a different feature changed. Applicants' invention provides a standardized icon that serves only to provide one function, which is notification, thus the user need only see the icon to understand that the object's status has changed. Designing the icon as a buoy furthers the user's comprehension and ease thereof. Applicants' invention is more user friendly than Green's teaching.

Furtherstill, a window can be both minimized and maximized (see the arrows in the upper right hand corners of the windows in Figs. 3 and 4 of Green). Maximizing a window causes the window to take up the entire display, thus covering the icons. Changing the icons provides no notice to the user when those icons are out of view. Applicants' invention does not suffer from this problem. Even in a full screen session, where the active window takes up the full screen, notification is provided by the sudden appearance of the notification icon on that full screen session. Green simply does not provide this capability.

With regard to claims 27 and 28, the Examiner states that Green teaches in col. 4, lines 38-63, a display unit 72 that is separate from the update icon 62. Applicants respectfully disagree. The limitations of claims 27 and 28 have been incorporated into claims 1 and 13. The Examiner's interpretation is contrary to Green's teaching of col. 5, lines 2-20. The no-update icon is replaced by the update icon when the application status changes. The two icons (the update and the no-update icons) are displayed in the same location on the monitor. Green simply does not teach otherwise. Furthermore, because the update icon replaces the no-update icon, Green is unable to display both simultaneously. Applicants' invention displays the notification icon while maintaining the representation of the first object.

Claims 2-9, 11-12, 14-21 and 23-29 are dependent upon claims 1 and 13, the allowability of which has been discussed above.

Claims 4 and 16 provide that a name of the first object is displayed close to the icon. Because Green does not teach providing a notification



icon that is separate from an application program itself, there is no suggestion or need to provide a name to that notification icon.

Claims 9 and 21 provide selecting the notification icon and then focusing the first object to enable the first object for user interaction. Green does not teach focusing an object from a notification icon that is separate from the object icon itself. Typically, an object is focused by double clicking on the icon itself, not on an icon that is separate from the object.

Claims 25 and 26 are dependent upon claims 9 and 21 and provide that the second object occupies the entire screen. The second object is a "full screen session", such as is shown in Fig. 4. As discussed above, the first object is obscured by the second object because the second object takes up the entire screen. However, the first object can be enabled by selecting the notification icon. Green does not teach the combination of a full screen session and a notification icon that is suddenly displayed separately from its object.

In fact, as discussed above, Green cannot provide notice while the user is working on a full screen session. This is because Green requires some space around the active window, which space is used to display the icon of the object. Utilizing a full screen session would cover up the Green type of icon.

Claims 11 and 23 provide that a third object is executed. When the third object ceases execution, a second notification icon is displayed on the user interface. That second notification icon is removed while maintaining a first notification icon on the user interface. Green does not teach displaying a second notification icon when a third object ceases executing. Nor does Green teach removing one notification icon while maintaining another notification icon on the user interface.

Claims 12 and 24 provide executing a third object and displaying a second notification icon when the third object ceases executing. The second notification icon is selected, wherein the third object is focused on the user interface. Green does not teach providing focusing an object from a notification icon itself.

The Examiner rejected claims 3, 5-8, 15 and 17-20 under 35 U.S.C. Section 103 as being unpatentable over Green. Applicants respectfully traverse this rejection.

d

As discussed above, these claims are dependent upon claims 1 and 13, the allowability of which has been discussed above.

Claims 3 and 15 provide that the icon is a buoy shaped icon. Green does not teach a buoy shaped icon. In fact, Green teaches away from a buoy shaped icon. Green teaches changing the icon representation of an application program. For example, in Fig. 3, the application program is "PC Print". When reduced to an icon, the icon is shaped like a printer. Thus, the icon shape conveys information about the application itself. Applicants' invention provides a standard icon for notification. By using a buoy shaped icon, the user immediately knows that upon seeing the buoy that a notification is occurring.

Claims 5 and 17 provide a line between the notification icon and the first object. Because Green does not teach providing a notification icon that is separate from an application program itself, there is no suggestion to provide a line connecting the application icon to another icon.

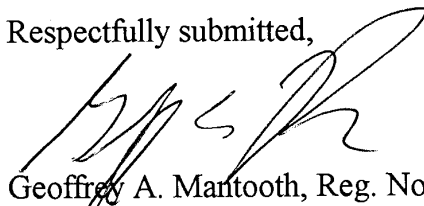
Claims 6, 7, 18 and 19 provide enabling and disabling the notification for selective objects. Green does not teach this.

Claims 8 and 20 provide removing the notification icon from the user interface. Green does not teach this.

In view of the foregoing, it is submitted that all of the claims in the application are allowable, and such allowance is respectfully requested.

If any additional fees are required, or overpayments made, please charge or credit deposit account no. 09-0453.

Respectfully submitted,



Geoffrey A. Mantoosh, Reg. No. 32,042
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 West Seventh Street, Suite 500
Fort Worth, Texas 76102
(817) 332-1233
(817) 332-5636 FAX

Attorney for Applicants





**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/586,149	01/11/96	JOHNSON	W DM-177

LM21/0608
GEOFFREY A MANTOOTH
WOFFORD FAILS ZOBAL AND MANTOOTH
110 WEST SEVENTH
SUITE 500
FORT WORTH TX 76102

EXAMINER

BANANKHAH, M

ART UNIT PAPER NUMBER

2755

15

DATE MAILED: 06/08/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

Responsive to communication(s) filed on Mar. 10/98

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire Three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-9, 11-21, 23-26, and 29 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-9, 11-21, 23-26, and 29 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of Reference Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

M. Banankhah
MAY 11 1998
COMM-FIELD OFFICE

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

Serial Number: 08/586149

Page -2-

Art Unit: 2755

1. This final action is in response to paper number 14, amendment D, which was received Mar. 10, 1998. Applicant's argument have been fully considered but they are not deemed to be persuasive. Claims 1-9, 11-21, and 23-26, and 29 are presented for examination.

2. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior Office action.

3. Claims 1-2, 4, 9, 11-14, 16, 21, 23-26 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Green et al. (U.S.Pat. No. 5,333,256).

Per claims 1 and 13, Green et al. disclose:

a multi-tasking computer (multitasking, col. 1, line 20), first and second objects (several application programs simultaneously, col. 1, line 21), notification of status of the second object (second icon updated responsive to change of status of the application, col. 1, L.S.. 65-68, continued on col. 2, lines 1-9), (a) and (b) executing first object (one or more application the user can select to be executed, col. 2, lines 47-68, continued on col. 3, L.S.. 1-2, and L.S.. 3-29); (c) determining when the first application ceases execution (when the

Serial Number: 08/586149

Page -3-

Art Unit: 2755

application program completes its assigned task, col. 1, line 21, col. 4, lines 48-51); (d) providing a notification suddenly and separate from the a representation of the first object on the user interface (when the application program completes its assigned task, displays the update icon 62 on the screen of the display device, col. 4, lines 38-63, Fig.5, and Fig.6).

Per claim 2, and 14, Green, in col. 2, lines 4-8, teach of determining when first object provide **prompt for a user input,** col 4, lines 26-31.

Per claim 4, and 16, Green teach providing notification icon that is separate from the application program, and provide a **name** to the notification icon (Fig. 4, element 56).

Per claim 9, and 21, Green teach of the case when the notification icon is selected and user interface is prompted for **a user input,** col. 4, lines 48-51.

Per claim 11-12, and 23-24, Green in the background of the invention teach of a multi-tasking operating system and the fact that a user may execute several application programs

Serial Number: 08/586149

Page -4-

Art Unit: 2755

simultaneously, and later he teach of association of each of the application programs with a respective window. Removing notification icon on a user interface in Green's teaching is not limited to one application and one notification icon.

Per claim 25-26, the reference of Green teach of minimizing icon representation on the user interface (minimized application program, col. 1, L.S. 44-59, also col. 4, L.S.. 32-37).

Per claim 29, it is well known in the art to make a pulsating or flashing icon to draw users attention and/or distinguish it from other icons.

4. Claims 3, 5-8, 15, and 17-20 are rejected under 35 U.S.C. § 103 as being unpatentable over Green et al. (U.S.Pat. No. 5,333,256).

As to the limitation of claims 3, and 15, the reference of Green et al. does not exclude any specific shape, therefore, it would be obvious to design the icon in any shape including a buoy shaped icon. The shape of the icon is a design choice.

Per claims 5, and 17, the reference of Green show a change in the virtual display buffer and in association with the

Art Unit: 2755

selected application program. The association is not a line, however, since Green does not limit the association with the shape he has selected (Fig. 6, element 74), it would be obvious to include a line as the link between display unit (72) and the update icon (62).

As to the limitation in claims 6, 7, 8, 18, 19, and 20, it is well known to provide the user with the option of enabling or disabling representation of a tool on the user interface for a specific application.

5. Applicant on page 4, first para. of his Remarks, argue that "Green merely updates an existing icon. That icon is not separate from the object representation, rather it is the representation in an of itself". In response thereto, applicants attention is respectfully directed to col. 1, lines 65-68, continued on col. 2, lines 1-8, where Green teach of **"A second icon, which is also associated with the application program, is displayed in response to the virtual display buffer being updated to indicate a change in the status of the application program"**, which clearly indicate the icon is separate from the first one for updating. Additionally, the abstract alone teach of **"a second icon is displayed on the display device"**. Later in the fourth para.

Art Unit: 2755

Applicant argue "Thus Green does not notify a user of an object's status by suddenly displaying a notification icon that is separate from the objects representation". In response it must please notice the cited sections of Green as indicated above. Regarding "sudden appearance", it is submitted that in Green there is indication of any time delay when he teach of representing the status by a second icon representation. Additionally, Applicant's attention is respectfully directed to col. 7, lines 15-18, in Green where he teaches of **"In response to the completion of the assigned task, the display of the update icon immediately inform the user of the change of status of the application program"**, which clearly indicate the indication is sudden.

Regarding the argument on page 6, first partial para. And the name to the notification icon, it is well known in the art to assign a name to the icon as it is indicated in Fig. 4, element 56 (printer).

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See PTO 892 for pertinent references.

AF/GAU2755/F

#16
JCM
10-26-98



DA9-93-027

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X

In Re Application Of :
 Johnson, et al. :
 Serial No. 08/586,149 : Examiner: Banankhah, M.
 Filed: January 11, 1996 : Art Unit: 2755
 "BUOY ICON NOTIFICATION :
 OF OBJECT INTERFACE :
 ACCESSIBILITY IN :
 MULTITASKING COMPUTER :
 ENVIRONMENT" :

-----X

98 OCT 22 PM 2:31
RECEIVED
GROUP 2700

REQUEST FOR EXTENSION OF TIME

Fort Worth, Texas 76102

BOX AF
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Applicants petition the Assistant Commissioner for Patents to extend the time for response to the Office Action dated June 8, 1998 for one month from September 8, 1998 to October 8, 1998.

10/21/1998 THUYEN 00000043 090453 08586149
01 FC:115 110.00 OP

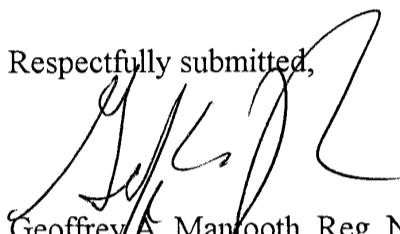
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: BOX AF, Assistant Commissioner for Patents, Washington, D.C. 20231 on October 8, 1998.

Geoffrey A. Mantooth, Reg. No. 32,042

Enclosed is a check in the amount of \$110.00 for payment of the request for extension. If any additional fees are required, please charge our deposit account number 23-2770.

Respectfully submitted,



Geoffrey A. Mantooth, Reg. No. 32,042
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 West Seventh Street, Suite 500
Fort Worth, Texas 76102
(817) 332-1233
(817) 332-5636 FAX

Attorney for Applicants



DA9-93-027

#17
JCM
10-28-98

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X

In Re Application Of :
Johnson, et al. :
Serial No. 08/586,149 :
Filed: January 11, 1996 :
"BUOY ICON NOTIFICATION :
OF OBJECT INTERFACE :
ACCESSIBILITY IN :
MULTITASKING COMPUTER :
ENVIRONMENT" :

Examiner: Banankhah, M.
Art Unit: 2755

RECEIVED
OCT 22 PM 2:31
GROUP 2700

-----X

NOTICE OF APPEAL

Fort Worth, Texas 76102

BOX AF
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Applicants hereby appeal to the Board of Patent Appeals and Interferences from the final decision dated June 8, 1998 of the Examiner rejecting claims 1-9, 11-21, 23-26 and 29.

Please charge deposit account number 09-0453 in the amount of \$310.00 for the Notice of Appeal fee. If any additional fees are required, or overpayments paid, please charge or credit deposit account number 09-0453.

CERTIFICATE OF MAILING

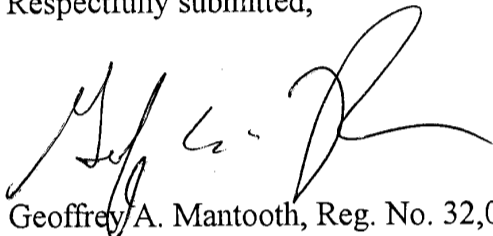
10/21/1998 THUYEN 00000043 090453 08586149
02 FC:119 310-00 PM
I hereby certify this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: BOX AF, Assistant Commissioner for Patents, Washington, D.C. 20231 on October 8, 1998.

Geoffrey A. Mantooh, Reg. No. 32,042

A petition and fee for an extension of time for time to reply to the rejection is attached.

A duplicate copy of this notice is enclosed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'G. A. Mantooth', written in a cursive style.

Geoffrey A. Mantooth, Reg. No. 32,042
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 West Seventh St., Suite 500
Fort Worth, Texas 76102
(817) 332-1233
(817) 332-5636 FAX

Attorney for Applicants

DOCKET NO. DA9-93-027

AP/GRU 2755/#

#18
gml
12-16-98



PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND
INTERFERENCES

RECEIVED

DEC 16 1998

Group 2700

-----X
In Re Application Of :
Johnson, et al. :
Serial No. 08/586,149 : Examiner: Banankhah, M.
Filed: January 11, 1996 : Art Unit: 2755
"BUOY ICON NOTIFICATION :
OF OBJECT INTERFACE :
ACCESSIBILITY IN :
MULTITASKING COMPUTER :
ENVIRONMENT" :
-----X

APPELLANTS' BRIEF

Fort Worth, Texas 76102

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This is an appeal from the Final Rejection of the Examiner dated
June 8, 1998 rejecting claims 1-9, 11-21, 23-26 and 29.

CERTIFICATE OF MAILING

12/15/1998 CHONG 00000051 090453 08586149

01 FC:120

300.00 CH

I hereby certify this correspondence is being deposited with the
United States Postal Service as first class mail in an envelope
addressed to: Assistant Commissioner for Patents, Washington, D.C.
20231 on December 8, 1998.

Geoffrey A. Mantooth, Reg. No. 32,042

DOCKET NO. DA9-93-027

Please charge deposit account number 09-0453 in the amount of \$300.00, which is the fee for filing this Brief. If deposit account number 09-0453 has insufficient funds or is an inactive account, please charge deposit account number 09-0461.

This Brief is filed in triplicate.

Real Party Interest

This application has been assigned to International Business Machines Corporation.

Related Appeals and Interferences

This application has no related appeals or interferences.

Status of the Claims

The application was filed as a file wrapper continuation on January 11, 1996, with a preliminary amendment. In an Office Action dated October 6, 1997, all of the claims were rejected. An Amendment, dated March 6, 1998, was filed in which claims 1 and 13 were amended.

Claims 1-9, 11-21, 23-26 and 29 were finally rejected by an Office Action dated June 8, 1998.

The status of the claims is as follows:

Claims allowed: None

Claims cancelled: 10, 22, 27 and 28

Claims rejected: 1-9, 11-21, 23-26 and 29.

Applicant is appealing the final rejection of claims 1-9, 11-21, 23-26 and 29. These claims are provided in the Appendix attached hereto.

DOCKET NO. DA9-93-027

Status of Amendments

After the final rejection, no Amendments were filed.

Summary of the Invention

The subject invention of claims 1 and 13 provides a notification of a status of an object on a computer. In particular, the computer 11 (Fig. 1) is multitasking and has first and second objects (page 6, lines 30-32; page 6, line 35 - page 7, lines 1-4). Referring to Fig. 3, which shows a display screen 17, a representation 32 of the first object is provided on a user interface 17 (the first object is shown as a phone object). The representation, which is shown as a window, supports user interaction with the object (page 9, lines 5-8).

The first object is executed on the computer (page 7, lines 18-25). For example, for the phone object, the user sends a fax transmission.

While the first object is executing (for example, by sending the fax transmission), the second object 33 (Fig. 2) is enabled so as to support user interaction with the second object on the user interface (page 7, lines 25-29).

While the second object is enabled to support user interaction, the invention determines when the first object ceases executing (page 7, lines 30-32).

When the first object ceases executing, a modification is provided on the user interface by suddenly displaying a notification icon 35 (Fig. 2; page 7, lines 30-33). The representation 31 of the first object is maintained, with the notification icon 35 being in a location that is separate from the representation of the first object on the user interface (see Fig. 2; page 8, lines 19-25).

Claims 3 and 15 provide that the notification icon is a buoy shaped icon 35 (see Fig. 2).

DOCKET NO. DA9-93-027

Claims 4 and 16 provide that the name of the first object is displayed in proximity to the notification icon ("PHONE" in Fig. 2).

Claims 5 and 17 provide that a line 45 (see Fig. 2) is displayed between the notification icon and the first object.

Claims 6 and 18 provide that the computer contains plural objects 27, 29, 31, 33 (Fig. 2), where the notification is enabled for the selected ones of the objects (page 11, lines 15 et seq.).

Claims 7 and 19 provide that the computer contains plural objects 27, 29, 31, 33 (Fig. 2), where the notification is disabled for the selected ones of the objects (page 11, lines 15 et seq.).

Claims 8 and 20 provide removing the notification icon from the user interface (page 8, lines 33-34; page 9, lines 3-11).

Claims 9 and 21 provide that the notification icon is selected and the first object is enabled to receive a user input (page 8, lines 33-34; page 9, lines 3-11).

Claims 11 and 23 provide displaying a second notification icon when a third object ceases executing, the second notification icon being separate from the third object. The second notification icon is removed from the user interface while the first notification icon is maintained on the user interface (page 9, lines 30-36; Fig. 5).

Claims 12 and 24 provide displaying a second notification icon when a third object ceases executing, the second notification icon being separate from the third object. The second notification icon is selected, wherein the third object is focused (page 9, lines 3-11, 30-33; Fig. 5).

Claims 25 and 26 provide displaying the notification icon in a first location on the user interface, the first object being in a second location on the user interface, the first and second locations being separate from each other (Fig. 2).

DOCKET NO. DA9-93-027

Statement of the Issues

Are claims 1-2, 4, 9, 11-14, 16, 21, 23-26 and 29 properly rejected under 35 U.S.C. Section 102(e) as being anticipated by Green et al. (U.S. Patent No. 5,333,256)?

Are claims 3, 5-8, 15 and 7-20 properly rejected under 35 U.S.C. Section 103 as being unpatentable over Green et al.?

Grouping of the Claims

It is Applicants' intention that claims 1, 2, 13, 14 and 29 stand together in a first group; claims 3 and 15 stand together in a second group; claims 4 and 16 stand together in a third group; claims 5 and 17 stand together in a fourth group; claims 6 and 18 stand together in a fifth group; claims 7 and 19 stand together in a sixth group; claims 8 and 20 stand together in a seventh group; claims 9 and 21 stand together in an eighth group; claims 11 and 23 stand together in a ninth group; claims 12 and 24 stand together in a tenth group; and claims 25 and 26 stand together in an eleventh group.

Argument

It is respectfully submitted that the Examiner erred in rejecting claims 1-2, 4, 9, 11-14, 16, 21, 23-26 and 29 under 35 U.S.C. Section 102(e) as being anticipated by Green et al.

Green updates an existing icon and provides notification of a change in an object's status. To understand how Green works, a brief description is given. As shown in Fig. 3 of Green, a user can interact with the topmost application window 44 (col. 4, lines 17-20). When the user wishes to change windows, each overlaying window must be removed or minimized (col. 4, lines 20-23). When an application window is minimized, it becomes an icon (col. 4, lines 23-26).

DOCKET NO. DA9-93-027

Minimizing the application window to an icon does not interfere with the execution of the application (col. 4, lines 26-31).

When an application window is minimized, it is displayed as a no-update icon 60 (Fig. 5; col. 5, lines 2-5). The no-update icon is replaced by an update icon 62 (Fig. 6) when the application finishes an action (col. 5, lines 5-20; see also col. 4, lines 38-63). Alternatively, the icon can change color (col. 5, lines 40-68).

Green does not teach providing a notification icon that is in a location that is separate from the representation of the first object on the user interface.

The Examiner argues that Green teaches separate first and second icons (paragraph 5, page 5 of the final Office Action). Applicants respectfully disagree that this is the same as their invention. The Examiner points to col. 1, lines 65-68 and col. 2, lines 1-8 for support for his contention. However, this portion of the reference, which is in the summary or Disclosure of the Invention, must be read in conjunction with the Best Mode for Carrying Out the Invention. In the Best Mode, the concept of replacement is made clear, wherein the first icon is replaced by the second icon (see col. 5, lines 16-20).

Even if the Disclosure of the Invention portion of Green is read in isolation, without the Best Mode portion, there still is no teaching of displaying a notification icon that is in a location that is separate from the representation of the first object. This is because to display the second icon, the virtual display buffer is updated. The virtual display buffer is associated with the application program. When the buffer is updated, the second icon is displayed. What exactly does "updating" the buffer mean? Does it mean maintaining the representation of the first icon, while adding the representation of the second icon? Or does it mean replacing the representation of the first icon with the representation of the second icon? The Examiner would subscribe to the former interpretation. Unfortunately, the Examiner's interpretation stretches the teaching of Green to beyond what is actually contained in the reference.

Also, Green does not teach notifying a user of an object status by suddenly displaying a notification icon that is separate from the object's

DOCKET NO. DA9-93-027

representation. Instead, Green provides notification of a change in status by changing the icon (either replacing it or changing its color).

Applicants' invention has several practical advantages over Green. As Green itself shows in Figs. 3 and 4, icons are typically located at the bottom or along an edge of a monitor. The icons are thus located away from the active window 44 or 46. Consequently, merely changing the icon may be insufficient to catch the attention of the user. Applicants' invention causes an icon to suddenly appear in a location that is separate from the object's icon. This sudden appearance in a new location on the user interface is more likely to catch the user's attention.

Furthermore, icons are small (by definition they are minimized applications). Merely changing an icon may be difficult for the user to see. Displaying a new icon for notification is much easier to see. The user need only recognize the existence of the icon, rather than some feature of it.

Furtherstill, with Green, a user must remember how the icon is changed. This requires more user training, especially if a large number of icons are used. In the example given by Green, the change in icons between Fig. 5 and Fig. 6 is slight. The user must remember what this change is and remember which icon is the no-update icon and which icon is the update icon. Each icon could have a different feature changed. Applicants' invention provides a standardized icon that serves only to provide one function, which is notification, thus the user need only see the icon to understand that the object's status has changed. Designing the icon as a buoy furthers the user's comprehension and ease thereof. Applicants' invention is more user friendly than Green's teaching.

Furtherstill, a window can be both minimized and maximized (see the arrows in the upper right hand corners of the windows in Figs. 3 and 4 of Green). Maximizing a window causes the window to take up the entire display, thus covering the icons. Changing the icons provides no notice to the user when those icons are out of view. Applicants' invention does not suffer from this problem. Even in a full screen session, where the active window takes up the full screen,

DOCKET NO. DA9-93-027

notification is provided by the sudden appearance of the notification icon on that full screen session. Green simply does not provide this capability.

Claims 4 and 16 provide that a name of the first object is displayed close to the icon. Because Green does not teach providing a notification icon that is separate from an application program itself, there is no suggestion or need to provide a name to that notification icon.

Claims 9 and 21 provide selecting the notification icon and then focusing the first object to enable the first object for user interaction. Green does not teach focusing an object from a notification icon that is separate from the object icon itself. Typically, an object is focused by double clicking on the icon itself, not on an icon that is separate from the object.

Claims 25 and 26 are dependent upon claims 9 and 21 and provide that the second object occupies the entire screen. The second object is a "full screen session", such as is shown in Fig. 4. As discussed above, the first object is obscured by the second object because the second object takes up the entire screen. However, the first object can be enabled by selecting the notification icon. Green does not teach the combination of a full screen session and a notification icon that is suddenly displayed separately from its object.

In fact, as discussed above, Green cannot provide notice while the user is working on a full screen session. This is because Green requires some space around the active window, which space is used to display the icon of the object. Utilizing a full screen session would cover up the Green type of icon.

Claims 11 and 23 provide that a third object is executed. When the third object ceases execution, a second notification icon is displayed on the user interface. That second notification icon is removed while maintaining a first notification icon on the user interface. Green does not teach displaying a second notification icon when a third object ceases executing. Nor does Green teach removing one notification icon while maintaining another notification icon on the user interface.

DOCKET NO. DA9-93-027

Claims 12 and 24 provide executing a third object and displaying a second notification icon when the third object ceases executing. The second notification icon is selected, wherein the third object is focused on the user interface. Green does not teach providing focusing an object from a notification icon itself.

It is respectfully submitted that the Examiner erred in rejecting claims 3, 5-8, 15 and 17-20 under 35 U.S.C. Section 103 as being unpatentable over Green.

These claims are dependent upon claims 1 and 13, the allowability of which has been discussed above.

Claims 3 and 15 provide that the icon is a buoy shaped icon. Green does not teach a buoy shaped icon. In fact, Green teaches away from a buoy shaped icon. Green teaches changing the icon representation of an application program. For example, in Fig. 3, the application program is "PC Print". When reduced to an icon, the icon is shaped like a printer. Thus, the icon shape conveys information about the application itself. Applicants' invention provides a standard icon for notification. By using a buoy shaped icon, the user immediately knows that upon seeing the buoy that a notification is occurring.

Claims 5 and 17 provide a line between the notification icon and the first object. Because Green does not teach providing a notification icon that is separate from an application program itself, there is no suggestion to provide a line connecting the application icon to another icon.

Claims 6, 7, 18 and 19 provide enabling and disabling the notification for selective objects. Green does not teach this.

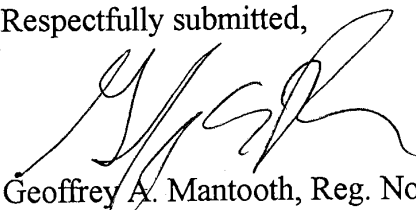
Claims 8 and 20 provide removing the notification icon from the user interface. Green does not teach this.

DOCKET NO. DA9-93-027

Conclusion

It is submitted that the claimed invention is not anticipated or made obvious by the prior art of Green. Applicants respectfully request that the rejections by the Examiner be reversed.

Respectfully submitted,



Geoffrey A. Mantooh, Reg. No. 32,042
WOFFORD, FAILS, ZOBAL & MANTOOTH
110 West Seventh St., Suite 500
Fort Worth, Texas 76102
(817) 332-1233
(817) 332-5636 FAX

Attorney for Applicants

DOCKET NO. DA9-93-027

APPENDIX

1. A method that is implemented on a multitasking computer that comprises first and second objects, said method providing notification of a status of said first object on said computer, comprising the steps of:
 - a) providing a representation of said first object on a user interface of said computer, with the representation supporting user interaction with said first object on said user interface of said computer;
 - b) executing said first object on said computer;
 - c) while said first object is executing, enabling said second object so as to support user interaction with said second object on said user interface of said computer;
 - d) while said second object is enabled so as to support user interaction, determining when said first object ceases executing;
 - e) providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on said user interface of said computer while maintaining the representation of the first object, said notification icon being in a location that is separate from the representation of said first object on said user interface.
2. The method of claim 1 wherein said step of determining when said first object ceases executing further comprises the step of determining when said first object provides a prompt for a user input.
3. The method of claim 1 wherein said step of displaying a notification icon on a user interface further comprises the step of displaying a buoy shaped icon on a screen.
4. The method of claim 1 wherein said step of providing a notification on said user interface when said first object ceases

DOCKET NO. DA9-93-027

executing further comprises the step of displaying a name of said first object in proximity to said notification icon.

5. The method of claim 1 wherein said step of providing a notification on said user interface when said first object ceases executing further comprises the step of displaying a line between said notification icon and said first object on said screen.

6. The method of claim 1 wherein said computer contains plural objects which comprise said first object and said second object, said method further comprising the step of enabling said notification for selected ones of said objects.

7. The method of claim 1 wherein said computer contains plural objects which comprise said first object and said second object, said method further comprising the step of disabling said notification for selected ones of said objects.

8. The method of claim 1 further comprising the step of removing said notification icon from said user interface.

9. The method of claim 1 further comprising the steps of:
a) selecting said notification icon; and
b) based upon said selecting of said notification icon, focusing said first object on said user interface, said step of focusing said first object on said user interface further comprising the step of enabling said first object for receiving a user input.

11. The method of claim 1 wherein said computer comprises a third object and said notification icon is a first notification icon, further comprising the steps of:
a) executing said third object;
b) determining when said third object ceases executing;
c) displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object; and
d) removing said second notification icon from said user interface while maintaining said first notification icon on said user interface.

DOCKET NO. DA9-93-027

12. The method of claim 1 wherein said computer comprises a third object and said notification is a first notification, further comprising the steps of:

- a) executing said third object;
- b) determining when said third object ceases executing;
- c) displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object;
- d) selecting said second notification icon; and
- e) based upon said selecting of said second notification icon, focusing said third object on said user interface while maintaining said first notification icon on said user interface.

13. An apparatus for use with a multitasking computer, said computer comprising first and second objects, said apparatus providing notification of a status of said first object on said computer, comprising:

- a) means for providing a representation of said first object on a user interface of said computer, with the representation supporting user interaction with said first object on said user interface of said computer;
- b) means for executing said first object on said computer;
- c) means for enabling said second object so as to support user interaction with said second object on a user interface of said computer while said first object is executing;
- d) means for determining when said first object ceases executing while said second object is enabled so as to support user interaction;
- e) means for providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on said user interface of said computer while maintaining the representation of the first object, said notification icon being in a location that is separate from the representation of said first object on said user interface.

DOCKET NO. DA9-93-027

14. The apparatus of claim 13 wherein said means for determining when said first object ceases executing further comprises means for determining when said first object provides a prompt for a user input.
15. The apparatus of claim 13 wherein said means for providing a notification on said user interface when said first object ceases executing by displaying a notification icon further comprises means for displaying a buoy shaped icon on said screen.
16. The apparatus of claim 13 wherein said means for providing a notification on said user interface when said first object ceases executing further comprises means for displaying a name of said first object in proximity to said notification icon.
17. The apparatus of claim 13 wherein said means for providing a notification on said user interface when said first object ceases executing further comprises means for displaying a line between said notification icon and said first object on said screen.
18. The apparatus of claim 13 wherein said computer contains plural objects which comprise said first object and said second object, said apparatus further comprising means for enabling said notification for selected ones of said objects.
19. The apparatus of claim 13 wherein said computer contains plural objects which comprise said first object and said second object, said apparatus further comprising means for disabling said notification for selected ones of said objects.
20. The apparatus of claim 13 further comprising means for removing said notification icon from said user interface.
21. The apparatus of claim 13 further comprising:
 - a) means for selecting said notification icon; and
 - b) means for focusing said first object on said user interface based upon said selecting of said notification icon, said means for focusing said first object on said user interface further comprising means for enabling said first object for receiving a user input.

DOCKET NO. DA9-93-027

23. The apparatus of claim 13 wherein said computer comprises a third object and said notification icon is a first notification icon, further comprising:

- a) means for executing said third object;
- b) means for determining when said third object ceases executing;
- c) means for displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object; and
- d) means for removing said second notification icon from said user interface while maintaining said first notification icon on said user interface.

24. The apparatus of claim 13 wherein said computer comprises a third object and said notification icon is a first notification icon, further comprising:

- a) means for executing said third object;
- b) means for determining when said third object ceases executing;
- c) means for displaying on said user interface a second notification icon when said third object ceases executing, said second notification icon being separate from said third object;
- d) means for selecting said second notification icon; and
- e) means for focusing said third object on said user interface while maintaining said first notification icon on said user interface based upon said selecting of said second notification icon.

25. The method of claim 9 wherein said step of enabling said second object further comprises the step of displaying said second object on a computer screen so that said second object occupies all of said screen.

26. The apparatus of claim 21 wherein said means for enabling said second object further comprises means for displaying said second object on a computer screen so that said second object occupies all of said screen.

DOCKET NO. DA9-93-027

29. The method of claim 1 wherein the step of suddenly displaying a notification icon on a user interface further comprises the step of causing said displayed notification icon to pulse.



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO. 00/536,149	FILING DATE 01/11/96	FIRST NAMED INVENTOR JOHNSON	ATTORNEY DOCKET NO. S.T. DM-177
-------------------------------	-------------------------	---------------------------------	---------------------------------------

LM02/0303
GEOFFREY A MANTOOTH
WOFFORD FAILS ZOBAL AND MANTOOTH
110 WEST SEVENTH
SUITE 500
FORT WORTH TX 76102

EXAMINER
BANANKHAH, M.

ART UNIT
2755

PAPER NUMBER
19

DATE MAILED: 03/03/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER OF
PATENTS AND TRADEMARKS
Washington, D.C. 20231

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 19

Application Number: 08/586149
Filing Date: 01/11/1996
Appellant(s): Johnson et al.

Geoffrey A. Mantooth
For Appellant

MAILED

MAR 03 1999

Group 2700

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed December 11, 1998.

Art Unit: 2755

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

Art Unit: 2755

(7) *Grouping of Claims*

Appellant's statement of grouping of claims in the brief is correct.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

✓ 5,333,256 Green et al. Jul. 26, 1994

(10) **New Prior Art**

No new prior art has been applied in this examiner's answer.

(11) **Grounds of rejection.**

The following grounds of rejection are applicable to the appealed claims:

The text of those sections of Title 35, US Code not included in this office action can be found in a prior Office Action.

In the final office action issued on 06/08/1998;

Art Unit: 2755

(I) Claims 1-2, 4, 9, 11-14, 16, 21, 23-26 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Green et al. (U.S.Pat. No. 5,333,256).

Per claims 1 and 13, Green et al. disclose:

a multi-tasking computer (multitasking, col. 1, line 20), first and second objects (several application programs simultaneously, col. 1, line 21, also application window, col. 4, lines 7-31), notification of status of the first object (monitoring the execution of an application program [an object], and second icon representing change in the status of the application program, col. 1, 65-68, continued on col. 2, lines 1-9), (a) providing a representation of said first object on a user interface of said computer with the representation supporting user interaction with said first object on said user interface of said computer (any application program on an application window [supporting user interface], e.g. , col. 4, lines 7-31, also Fig. 3, element 50 and object CLIPBOARD) (b) and © executing first object, while the first object is executing, enabling said second object (execution of the application programs on application windows at the same time, col. 4, lines 7-31, also Fig. 4, elements 50, and 46 and their highlighted applications); (d) determining when the first application ceases execution (task associated therewith is completed, col. 4, line 23-32, also, lines 48-51); (e) providing a notification suddenly and separate from the representation of the first object on the user interface (when the application program completes its assigned task or needs the attention of the user, system 10 then displays the update icon 62 on the screen of the display device, col. 4, lines 38-63, Fig.5, and Fig.6).

Art Unit: 2755

Per claim 2, and 14, Green, in col. 2, lines 4-8, teach of determining when first object provide prompt for a user input, col 4, lines 26-31.

Per claim 4, and 16, Green teach providing notification icon that is separate from the application program, and provide a name to an icon (Fig. 4, element 56).

Per claim 9, and 21, Green inherently teach of the case when the notification icon is selected and user interface is prompted for a user input (when the application program completes its assigned task or needs the attention of the user, col. 4, lines 38-63).

Per claim 11-12, and 23-24, Green teaches of removing an application window associated with an application program in claims 2 and 5.

Per claim 25-26, the reference of Green teach of minimizing icon representation on the user interface (minimized application program, col. 1, L.S. 44-59, also col. 4, L.S.. 32-37).

Per claim 29, it is well known in the art to make a pulsating or flashing icon to draw users attention and/or distinguish it from other icons.

Art Unit: 2755

(ii) Claims 3, 5-8, 15, and 17-20 are rejected under 35 U.S.C. § 103 as being unpatentable over Green et al. (U.S.Pat. No. 5,333,256).

As to the limitation of claims 3, and 15, the reference of Green et al. While, show the icon as in Figs.5 and 6, it does not exclude any specific shape. Therefore, it would be obvious to design the icon in any shape including a buoy shaped icon. The shape of the icon is a design choice.

Per claims 5, and 17, the reference of Green show a change in the virtual display buffer and in association with the selected application program. The association is an arrow (element 74), however, since Green does not limit the association with the shape he has selected (Fig. 6, element 74), it would be obvious to include a line as the link between display unit (72) and the update icon (62).

As to the limitation in claims 6, 7, 8, 18, 19, and 20, it is well known to provide the user with the option of enabling or disabling representation of a tool on the user interface for a specific application. Green teaches of removing an application window in claims 2 and 5.

(12) *New Ground of Rejection*

Examiner's Answer does not contain any new ground of rejection.

Art Unit: 2755

(13) *Response to argument*

(A) Applicant on page 5, last paragraph and continued on page 6, argue “When an application window is minimized, it becomes an icon (col. 4, lines 23-26). Minimizing the application window to an icon does not interface with the execution of the application (col. 4, lines 26-31)”. In response, Applicant’s attention is directed to the teaching of Green in Fig. 3, and the highlighted application program (e.g., element 50), and the fact that when an application on a window is selected, it supports user interaction with the application program, as is indicated in the rejection of claim 1 above. Additionally, application windows could be minimized while the application program is still running. Icon 62, which shows the application program completed its execution is different in location from the minimized window 44 (See also, col. 4, lines 38-63, and Figs.5-6, and elements 70 and 72).

(B) later on page 6, third paragraph, Applicant argue “Green does not teach providing a notification icon that is in a location that is separate from the representation of the first object on the user interface”. In response, as it is shown in previous paragraph, an application program running in an application window could be minimized and a second application program could be selected. In order to see the second application program (multiple windows), first window in minimized while the first application program on the first window (supporting user interaction) could be running. An Icon is displayed to show the first application program is running while the minimized icon is there.

Art Unit: 2755

(C) Later on page 6, fourth paragraph, Applicant argue "In the Best Mode, the concept of replacement is made clear, wherein the first icon is replaced by the second icon (see col. 5, lines 16-20)". In response as it was mentioned in the last paragraph, the application window which support UI, when minimized, is different from the update icon. The icon Green is teaching in that paragraph is just the update icon and is separate from the application window with an application (UI) selected and invoked to run in there (object). Besides, Green teaches of even two icon in an alternate embodiment. Green in col. 5, lines 34-68, restates: "Referring to FIG. 8, there is shown a flow diagram of an alternate embodiment of the icon routine to be included in application programs which are to be monitored on the information processing system 10. As noted above, **the preferred embodiment requires the assignment of *two icons* to each application program.** The alternate embodiment only requires the assignment of a single status icon. However, the alternate embodiment utilizes different colors or shades of the status icon to indicate a status change of the application program".

(D) On Page 6, fifth paragraph, Applicant argue "there s not teaching of displaying a notification icon that is in a location that is separate from the representation of the first icon". In response Application attention is respectfully directed to response to argument in part (B) and (C) above.

Art Unit: 2755

(E) Later on page 6, last paragraph, Applicant argue “Also Green does not teach notifying a user of an object status by suddenly displaying a notification icon that is separate from the object’s representation. Instead, Green provide notification of change in status by changing the icon (either replacing it or changing its color)”. In response, regarding the separation of the notification icon from the object representation, as it was stated above, the application window which support UI, when minimized, is different from the update icon. The icon Green is teaching in that paragraph is just the update icon and is separate from the application window with an application (UI) selected and invoked to run in there (object). Regarding “sudden display”, it is submitted that in Green there is no indication of any time delay when he teaches of representing the status by a second icon representation. Additionally, Applicant’s attention is respectfully directed to col. 7, lines 15-18, in Green where he teaches of **“In response to the completion of the assigned task, the display of the update icon immediately inform the user of the change of status of the application program”**, which clearly indicate the indication is sudden.

(F) On page 7, second paragraph, Applicant argue “As Green itself shows in Fig.3, and 4, icons are typically located at the bottom or along an edge of a monitor”. In response Applicant attention is directed to the teaching of Green in col.4, lines 38-63 where he indicate “when the application program completes its assigned task or needs the attention of the user, system 10 then displays the update icon 62 on the screen of the display device”. Additionally,

Art Unit: 2755

claims 1, and 13, recites display notification icon being in a location that is separate from the representation of the first object. Green's update icon is separate from the application window with an application program running.

(G) Page 7, third paragraph, argue "Merely changing an icon may be difficult for the user to see. Displaying a new icon for notification is much easier to see.". In response Applicant's attention is directed to response to argument in part (B) and © above.

(H) Page 7, fourth paragraph, argue "In the example given by green, the change in icons between Fig. 5, and Fig. 6 is slight... Applicant's invention provides a standardize icon that serve only to provide one function, which is notification, thus the user need only see the icon to understand that the object's status has changed". In response, It appears that this argument to be in contradiction with the argument presented in the previous paragraph, i.e. "merely changing icon may be insufficient to catch the attention of the user". However, speaking of standard icon, Fig. 6 in Green is the standard icon which is used for change of status. After in the next paragraph Applicant argue "Changing the icons provide no notice to the user when those icons are out of view. Applicant's invention does not suffer from this problem. Even in a full screen, where the active window takes up the full screen, notification is provided by the sudden appearance of the notification icon on that full screen. Green simply does not provide this capability". In response it is submitted that the update icon (notification

Art Unit: 2755

icon) in Green is sudden and appears on the screen (when the application program completes its assigned task or needs the attention of the user, system 10 then displays the update icon 62 on the screen of the display device, Green, col. 4, lines 48-51). Later Green teaches of “the user of system 10 can immediately determine whether the selected application program has completed its desired task or needs attention of the user without restoring the application window associated with selected application program, Green col. 4, lines 59-63)

(I) Page 8, second paragraph, argue “Because Green does not teach providing a notification icon that is separate from an application program itself, there is no suggestion or need to provide a name to that notification icon”. In response, it is submitted that Green teaches providing notification icon that is separate from the application program (See section (B-C) above), and provide a **name** to an icon (Fig. 4, element 56).

(J) Page 8, third paragraph, Applicant argue “Green does not teach focusing an object from a notification icon that is separate from the object icon itself, Typically, an object is focussed by double clicking on the icon itself, not on an icon that is separate from the object”. In response, it is submitted that Green teaches providing notification icon that is separate from the application program (See section (B-C) above). Therefore, Applicant’s interpretation of Green is wrong. As he states, when the running application program completes its assigned task or needs the attention of the user. Therefore, the update icon is

Art Unit: 2755

separate from the application icon and since it is icon, the invocation of the application could also be initiated from double clicking on update icon. Otherwise, it would have been called something else (status indicator for example) and not an Icon.

(K) Applicant on page 8, fourth paragraph argue "Green does not teach the combination of a full screen and a notification icon that is suddenly displayed separately from its object". In response, Application's attention is directed to the teaching of Green in col. 4, lines 48-53. Green teaches "when application program completes its assigned task or needs the attention of a user, system 10 then display the update icon". He does not say, when the application program complete its assigned task and when the application window is not maximized. Green does not limit himself to full screen and/or partial screen. Applicant is adding words into Green's invention. Additionally, in claims 9 and or 21 there is no recitation of full screen application windows.

(L) Applicant on page 8, fifth paragraph argue "Green does not teach displaying a second notification icon when a third object ceases execution". In response, it is teach of a multi-tasking operating system. In a multi-tasking environment, several application program could be executed at the same time . Therefore, Green is not limited to one application program and one update icon. Regarding removing of an object, Green teaches of removing an application window associated with an application program in claims 2 and 5.

Art Unit: 2755

(M) Applicant on page 9, first paragraph argue "Green does not teach providing focusing an object from a notification icon itself". In response, Applicant's attention is directed to part (J) above.

(N) Applicant on page 9, second paragraph argue "Green teaches away from a buoy shaped icon". Later "By using a buoy shaped icon, the user immediately knows that upon seeing the buoy that a notification is occurring". In response to the shape of the icon, as it was indicated in the rejection of claims 3, and 15, the shape of an icon is a matter of design choice. Regarding the language of "the user immediately ..." used in the argument, it is submitted that the update icon of Green is also immediate. There is no time delay involved when an application program ceases execution and the time when an update icon is displayed on the screen of the user.

(O) Applicant on page 9, fifth paragraph argue "Green does not teach of a notification icon that is separate from an application program itself, there is no suggestion to provide a line connecting the application icon to another icon". In response, regarding the separation of notification icon and representation of application program, Applicant's attention is respectfully directed to the part (B) and (C) above. Regarding a line connecting one icon to another the association is an arrow (element 74) in Green's teaching, however, since Green

Application/Control Number: 08/586149

Page 14

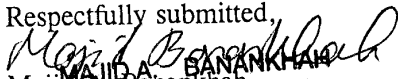
Art Unit: 2755

does not limit the association with the shape he has selected (Fig. 6, element 74), it would be obvious to include a line as the link between display unit (72) and the update icon (62) instead of an arrow.

(P) Applicant on page 9, sixth and seventh paragraph argue that Green does not teach “provide enabling and disabling the notification for selective object”, and “provide removing the notification icon from the user interface”. In response it is well known to provide the user with the option of enabling or disabling representation of a tool on the user interface for a specific application. Green teaches of removing an application window in claims 2 and 5.

14) For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Majid A. Babank
PRIMARY EXAMINER

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM J. JOHNSON,
LARRY M. LACHMAN,
and
MICHAEL D. SMITH

Appeal No. 1999-2262
Application No. 08/586,149

ON BRIEF

Before FLEMING, RUGGIERO, and BARRY, Administrative Patent Judges.
RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-9, 11-21, 23-26 and 29, all of the claims pending in the application. Claims 10, 22, 27, and 28 have been canceled.

The claimed invention relates to a method and apparatus for providing notification of the status of first and second objects on a multitasking computer. While a first object is executing, and a representation of the first object is provided on a user interface, the second object is enabled and user interaction with the second object on the user interface is supported. During

RE-MAILED
MAY 22 2002
MAY 20 2002

PAT & TM OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Appeal No. 1999-2262
Application No. 08/586,149

execution of the second object, a determination of the cessation of operation of the first object is made and notification of this cessation is provided on the user interface. This notification takes the form of a sudden display of a notification icon on the user interface, the location of the notification icon being in a location separate from the representation of the first object on the user interface.

Claim 1 is illustrative of the invention and reads as follows:

1. A method that is implemented on a multitasking computer that comprises first and second objects, said method providing notification of a status of said first object on said computer, comprising the steps of:
 - a) providing a representation of said first object on a user interface of said computer, with the representation supporting user interaction with said first object on said user interface of said computer;
 - b) executing said first object on said computer;
 - c) while said first object is executing, enabling said second object so as to support user interaction with said second object on said user interface of said computer;
 - d) while said second object is enabled so as to support user interaction, determining when said first object ceases executing;
 - e) providing a notification on said user interface when said first object ceases executing by suddenly displaying a notification icon on said user interface of said computer while maintaining the representation of the first object, said notification icon being in a location

Appeal No. 1999-2262
Application No. 08/586,149

that is separate from the representation of said first object on said user interface.

The Examiner relies on the following prior art:

Green et al. (Green)	5,333,256	Jul. 26, 1994 (filed Apr. 07, 1992)
----------------------	-----------	--

Claims 1, 2, 4, 9, 11-14, 16, 21, 23-26, and 29 stand finally rejected under 35 U.S.C. § 102(e) as being anticipated by Green. Claims 3, 5-8, 15, and 17-20 stand finally rejected under 35 U.S.C. § 103 as being unpatentable over Green.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief (Paper No. 18) and Answer (Paper No. 19) for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner and the evidence of anticipation and obviousness relied upon by the Examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' arguments set forth in the Brief along with the Examiner's rationale in support of the rejections and arguments in rebuttal set forth in the Examiner's Answer.

Appeal No. 1999-2262
Application No. 08/586,149

It is our view, after consideration of the record before us, that the Green reference does not fully meet the invention as set forth in claims 1, 2, 4, 9, 11-14, 16, 21, 23-26, and 29. We are further of the view that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in the appealed claims 3, 5-8, 15, and 17-20. Accordingly, we reverse.

We consider first the Examiner's 35 U.S.C. § 102(e) rejection of claims 1, 2, 4, 9, 11-14, 16, 21, 23-26, and 29 as being anticipated by Green. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

With respect to independent claims 1 and 13, the Examiner attempts to read the various limitations on the disclosure of Green. In particular, in addressing the notification icon

Appeal No. 1999-2262
Application No. 08/586,149

feature of independent claims 1 and 13, the Examiner (Answer, page 4) points to the description in Green at column 4, lines 38-63 and the illustrations in Figures 5 and 6.

After careful review of the applied Green reference in light of the arguments of record, we are in agreement with Appellants' position as stated in the Brief. Our interpretation of Green coincides with that of Appellants, i.e., contrary to the claimed invention, there is no disclosure of the display of a notification icon at a location on a user interface that is separate from a representation of its associated object. While it is proper for an Examiner to consider, not only the specific teachings of a reference, but inferences a skilled artisan might draw from them, it is equally important that the teachings of prior art references be considered in their entirety.

See In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968); W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d at 1548, 220 USPQ at 311.

In particular, in order for us to accept the Examiner's conclusions in the present factual situation, we would have to improperly selectively ignore significant portions of the disclosure of the Green reference. While the disclosure in the Abstract and at column 4, lines 38-63 of Green describes the

Appeal No. 1999-2262
Application No. 08/586,149

display of first (no-update) and second (update) icons on a display device, it is apparent from a reading of the entirety of Green that the update icon replaces the no-update icon, i.e., it is not in a separate location from a representation of its associated object. As described at column 5, lines 15-20 of Green:

Step **93** determines whether the update to the virtual display buffer is a first update. If it is determined that the update is the first update steps **94** and **96** facilitates the replacing of the no-update icon with the display of the update icon and sets the update flag, respectively.

It is further indicated in Green that, contrary to the Examiner's assertion, the minimization icon is not separate from the notification icon but rather is in fact the no-update icon itself. In discussing the minimization of an active application window, Green discloses that "the application window is replaced by the no-update icon" (Green, column 7, lines 33-36, emphasis ours).

In view of the above discussion, since all of the claim limitations are not present in the disclosure of Green, the Examiner's 35 U.S.C. § 102(e) rejection of independent claims 1 and 13, as well as claims 2, 4, 9, 11, 12, 14, 16, 21, 23-26, and 29 dependent thereon, is not sustained.

Appeal No. 1999-2262
Application No. 08/586,149


Turning to the Examiner's 35 U.S.C. § 103 rejection of dependent claims 3, 5-8, 15, and 17-20 based on Green alone, we do not sustain this rejection as well. In addressing the language of several of the dependent claims, the Examiner (Answer, page 6) asserts the obviousness to the skilled artisan of selecting various shapes for the notification icon. All of the dependent claims, however, are dependent on either independent claims 1 or 13, each of which requires a display of a notification icon separate from an object representation, a teaching or suggestion of which we found lacking in Green as discussed supra.

Appeal No. 1999-2262
Application No. 08/586,149

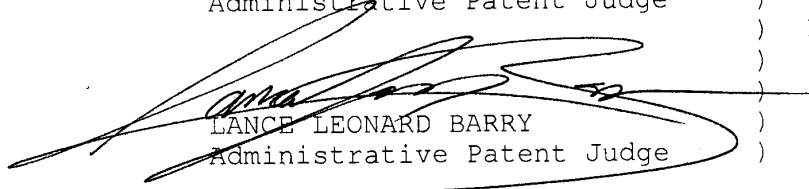
In summary, we have not sustained either of the Examiner's rejections of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-9, 11-21, 23-26 and 29 is reversed.

REVERSED


MICHAEL R. FLEMING)
Administrative Patent Judge)


JOSEPH F. RUGGIERO)
Administrative Patent Judge)

) BOARD OF PATENT
) APPEALS AND
) INTERFERENCES
)


LANCE LEONARD BARRY)
Administrative Patent Judge)

JFR:hh

Appeal No. 1999-2262
Application No. 08/586,149


~~GEOFFREY A. MANTOOTH~~
~~WOFFORD, FAILS, ZOBAL & MANTOOTH~~
~~110 WEST SEVENTH~~
~~SUITE 500~~
~~FORT WORTH, TX 76102~~

Decker, Jones, McMackin,
McClane, Hall & Bates
Burnett Plaza
801 Cherry St. - Ste 2000
Ft., Worth TX 76102-6836

Appeal No. 1999-2262
Application No. 08/586,149

GEOFFREY A. MANTOOTH
Decker, Jones, McMackin, McClane, Hall & Bates
Burnett Plaza
801 Cherry Street, Suite 2000
Ft. Worth, TX 76102-6836

cd

Notice of Allowability	Application No. 08/586,149	Applicant(s) William J. Johnson et al.	
	Examiner Majid A. Banankhah	Art Unit 2151	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to 3-29-02
- 2. The allowed claim(s) is/are 1-9, 11-21, 23-26, and 29
- 3. The drawings filed on _____ are acceptable as formal drawings.
- 4. Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - a) All b) Some* c) None of the:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- *Certified copies not received: _____
- 5. Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

- 6. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
 - 7. Applicant MUST submit NEW FORMAL DRAWINGS
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) Paper No. 5.
 - (b) including changes required by the proposed drawing correction filed _____, which has been approved by the examiner.
 - (c) including changes required by the attached Examiner's Amendment/Comment or in the Office action of Paper No. _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.**
- 8. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- 1 Notice of References Cited (PTO-892)
- 2 Notice of Informal Patent Application (PTO-152)
- 3 Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 4 Interview Summary (PTO-413), Paper No. _____
- 5 Information Disclosure Statement(s) (PTO-1449), Paper No(s). _____
- 6 Examiner's Amendment/Comment
- 7 Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 8 Examiner's Statement of Reasons for Allowance
- 9 Other


MAJID BANANKHAH
 PRIMARY EXAMINER



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 07/19/2002

GEOFFREY A. MANTOOTH DECKER, JONES,
MCMACKIN, MCCLANE, HALL & BATES, P.C.
BURNETT PLAZA
801 CHERRY STREET SUITE 2000
FORTWORTH, TX 76102-6836

EXAMINER

BANANKHAH, MAJID A

ART UNIT CLASS-SUBCLASS

2156 345-772000

DATE MAILED: 07/19/2002

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/586,149	01/11/1996	WILLIAM J. JOHNSON	DM-177	3171

TITLE OF INVENTION: BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN MULTITASKING COMPUTER ENVIRONMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$0	\$1280	10/21/2002

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or
B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

Applicant claims SMALL ENTITY status.
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Box ISSUE FEE**
Commissioner for Patents
Washington, D.C. 20231
Fax (703)746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)
 7590 07/19/2002

GEOFFREY A. MANTOOTH DECKER, JONES,
 MCMACKIN, MCCLANE, HALL & BATES, P.C.
 BURNETT PLAZA
 801 CHERRY STREET SUITE 2000
 FORTWORTH, TX 76102-6836

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/586,149	01/11/1996	WILLIAM J. JOHNSON	DM-177	3171

TITLE OF INVENTION: BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN MULTITASKING COMPUTER ENVIRONMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$0	\$1280	10/21/2002

EXAMINER	ART UNIT	CLASS-SUBCLASS
BANANKHAH, MAJID A	2156	345-772000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

- 1 _____
- 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) individual corporation or other private group entity government

4a. The following fee(s) are enclosed:

- Issue Fee
- Publication Fee
- Advance Order - # of Copies _____

4b. Payment of Fee(s):

- A check in the amount of the fee(s) is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

(Date)

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMIT THIS FORM WITH FEE(S)

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004. OMB 0651-0033

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/586,149	01/11/1996	WILLIAM J. JOHNSON	DM-177	3171
	7590 07/19/2002		EXAMINER	
GEOFFREY A. MANTOOTH DECKER, JONES, MCMACKIN, MCCLANE, HALL & BATES, P.C. BURNETT PLAZA 801 CHERRY STREET SUITE 2000 FORTWORTH, TX 76102-6836 UNITED STATES			BANANKHAH, MAJID A	
			ART UNIT	PAPER NUMBER
			2156	
			DATE MAILED: 07/19/2002	

Determination of Patent Term Extension under 35 U.S.C. 154 (b)
(application filed after June 7, 1995 but prior to May 29, 2000)

The patent term extension is 1256 days. Any patent to issue from the above identified application will include an indication of the 1256 day extension on the front page.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (<http://pair.uspto.gov>)



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 08/586,149, 01/11/1996, WILLIAM J. JOHNSON, DM-177, 3171
Row 2: 7590, 07/19/2002, GEOFFREY A. MANTOOTH DECKER, JONES, MCMACKIN, MCCLANE, HALL & BATES, P.C., BURNETT PLAZA, 801 CHERRY STREET SUITE 2000, FORTWORTH, TX 76102-6836, UNITED STATES, EXAMINER BANANKHAH, MAJID A, ART UNIT 2156, PAPER NUMBER, DATE MAILED: 07/19/2002

Notice of Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking, 67 Fed. Reg. 30634, 30636 (May 7, 2002).

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid.

Effective October 1, 2002, 37 CFR 1.18 is proposed to be revised to change the patent issue fees as set forth below. As stated above, the final fees may be a different amount, and applicant should check the web site given above when paying the fee.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

By a small entity (Sec. 1.27(a))--\$655.00
By other than a small entity--\$1,310.00

(b) Issue fee for issuing a design patent:

By a small entity (Sec. 1.27(a))--\$235.00
By other than a small entity--\$470.00

(c) Issue fee for issuing a plant patent:

By a small entity (Sec. 1.27(a))--\$315.00
By other than a small entity--\$630.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

202
5/22/02
meb

Please type a plus sign (+) inside this box +
 PTO/SB/122 (10-00)
 Approved for use through 10/31/2002. OMB 0651-0035
 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

CHANGE OF CORRESPONDENCE ADDRESS Application	Application Number	08/586,149
	Filing Date	01/11/1996
	First Named Inventor	Johnson et al.
	Group Art Unit	2755
	Examiner Name	M. Banankhah
	Attorney Docket Number	6077.37009

Address to:
Assistant Commissioner for Patents
Washington, D.C. 20231

Please change the Correspondence Address for the above-identified application to:

Customer Number
Type Customer Number here

Place Customer Number Bar Code Label here

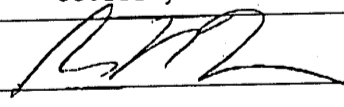
OR

<input type="checkbox"/> Firm or Individual Name	Geoffrey A. Mantooth		
Address			
Address			
City	State	ZIP	
Country			
Telephone	Fax		

This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

- I am the :
- Applicant/Inventor.
 - Assignee of record of the entire interest. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).
 - Attorney or Agent of record.
 - Registered practitioner named in the application transmittal letter in an application without an executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number _____

Typed or Printed Name: Geoffrey A. Mantooth

Signature: 

Date: May 13, 2002

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

*Total of 1 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

DECKER, JONES, McMACKIN, McCLANE, HALL & BATES

Burnett Plaza
801 Cherry Street, Suite 2000
Fort Worth, TX 76102-6836

Telephone (817) 336-2400
Metro (817) 429-5260
Fax (817) 332-3043 or (817) 336-2181
cmail@deckerjones.com

FACSIMILE TRANSMISSION

PLEASE DELIVER TO: Examiner M. Banankhah
COMPANY: United States Patent and Trademark Office
TELECOPIER #: 703-308-7952
FROM: Geoffrey A. Mantooth
CLIENT/MATTER #: 6077.37009
NUMBER OF PAGES INCLUDING COVER PAGE: 2
DATE and TIME: May 13, 2002, 11:13 AM.

IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL (817) 336-2400.

COMMENTS:

PLEASE SEE ATTACHED CHANGE OF CORRESPONDENCE ADDRESS FORM.

Note: The information contained in this facsimile transmission is intended only for the use of the individual or entity to whom it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address. Thank you.

KA

#237

PATENTS
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

-----X
 In Re Application Of :
 Johnson, William J. et al. : Examiner: Banankham, M.
 Serial No: 08/586,149 : Art Unit: 2156
 Filed: January 11, 1996 :
 "BUOY ICON NOTIFICATION OF :
 OBJECT INTERFACE ACCESSIBILITY :
 IN MULTITASKING COMPUTER :
 ENVIRONMENT" :
 -----X

SUBMISSION OF FORMAL DRAWINGS

BOX ISSUE FEE
Commissioner for Patents
Washington, D. C. 20231

RECEIVED

OCT 15 2002

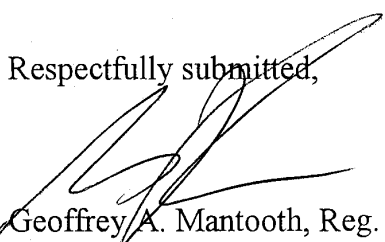
Office of Patent Publication
Director's Office

Dear Sir:

The subject patent application received a Notice Of Allowance dated July 19, 2002. Please find enclosed 11 sheets of formal drawings for the subject application.

If any additional fees are required, please charge deposit account number 09-0461.

Respectfully submitted,



Geoffrey A. Mantooh, Reg. No. 32,042
 Decker, Jones, McMackin, McClane, Hall & Bates
 Burnett Plaza, Suite 2000
 801 Cherry Street, Unit #46
 Fort Worth, Texas 76102
 (817) 336-2400
 (817) 336-2181 Fax

Attorney for Applicants

6077.37009/205600

07/02

6489974

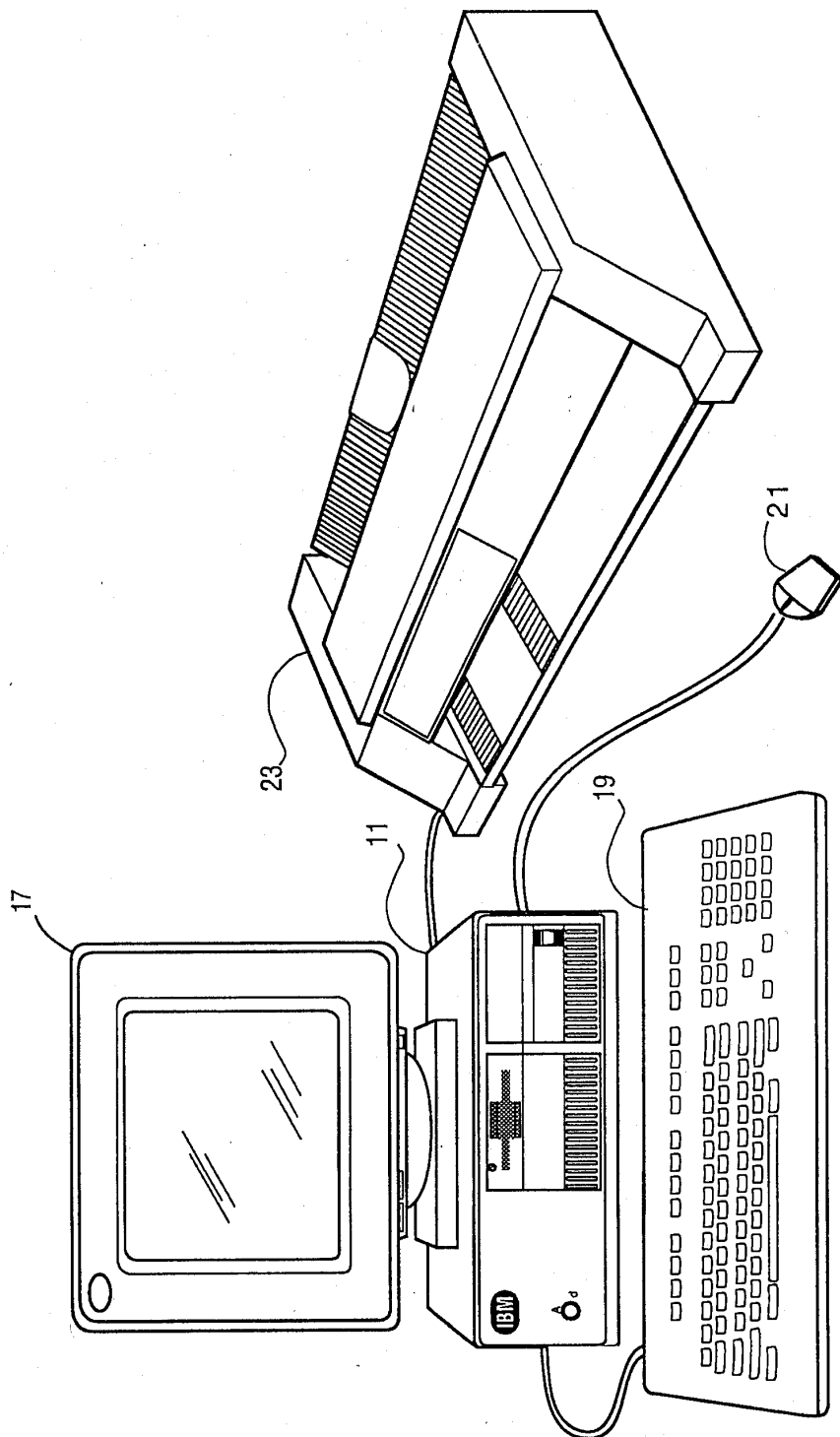


Fig. 1

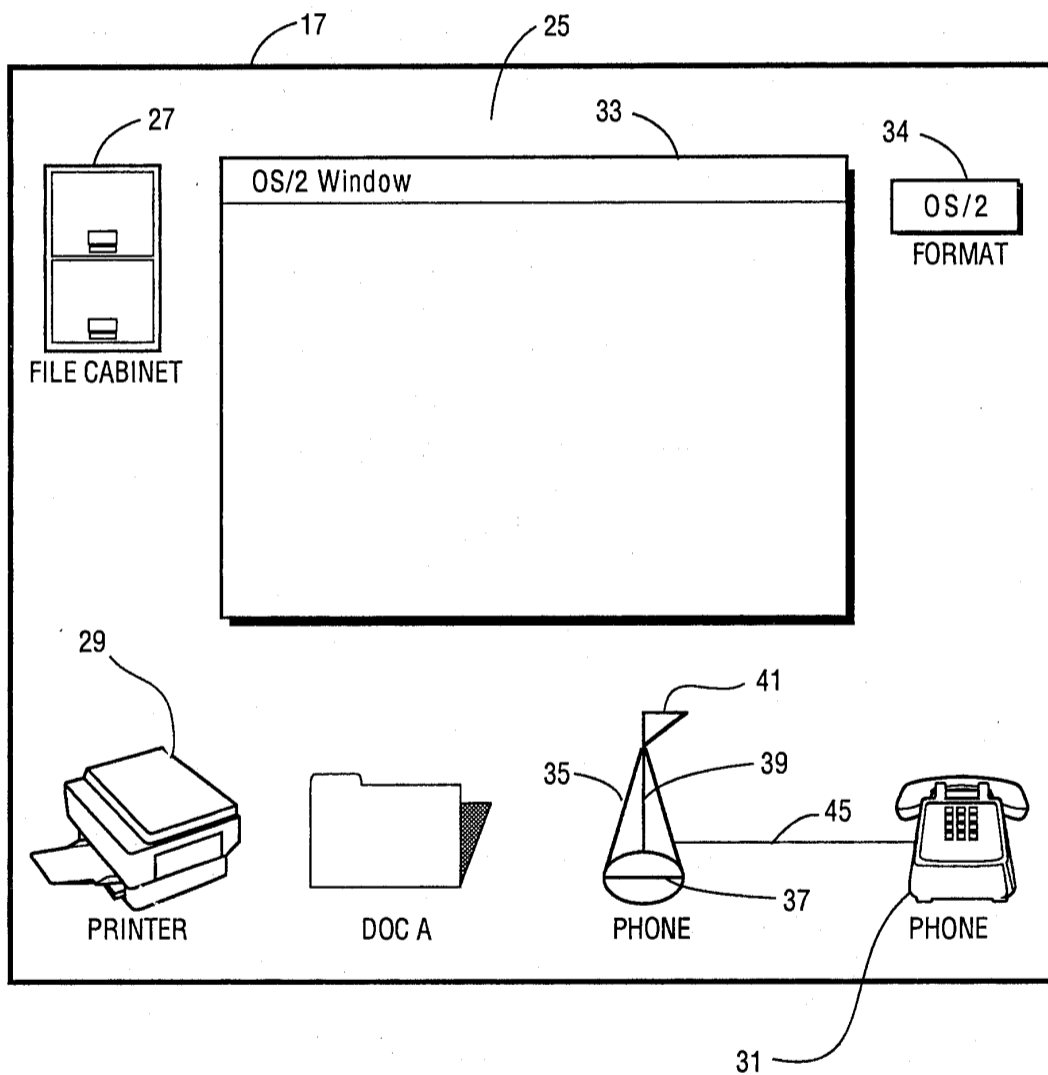


FIG 2

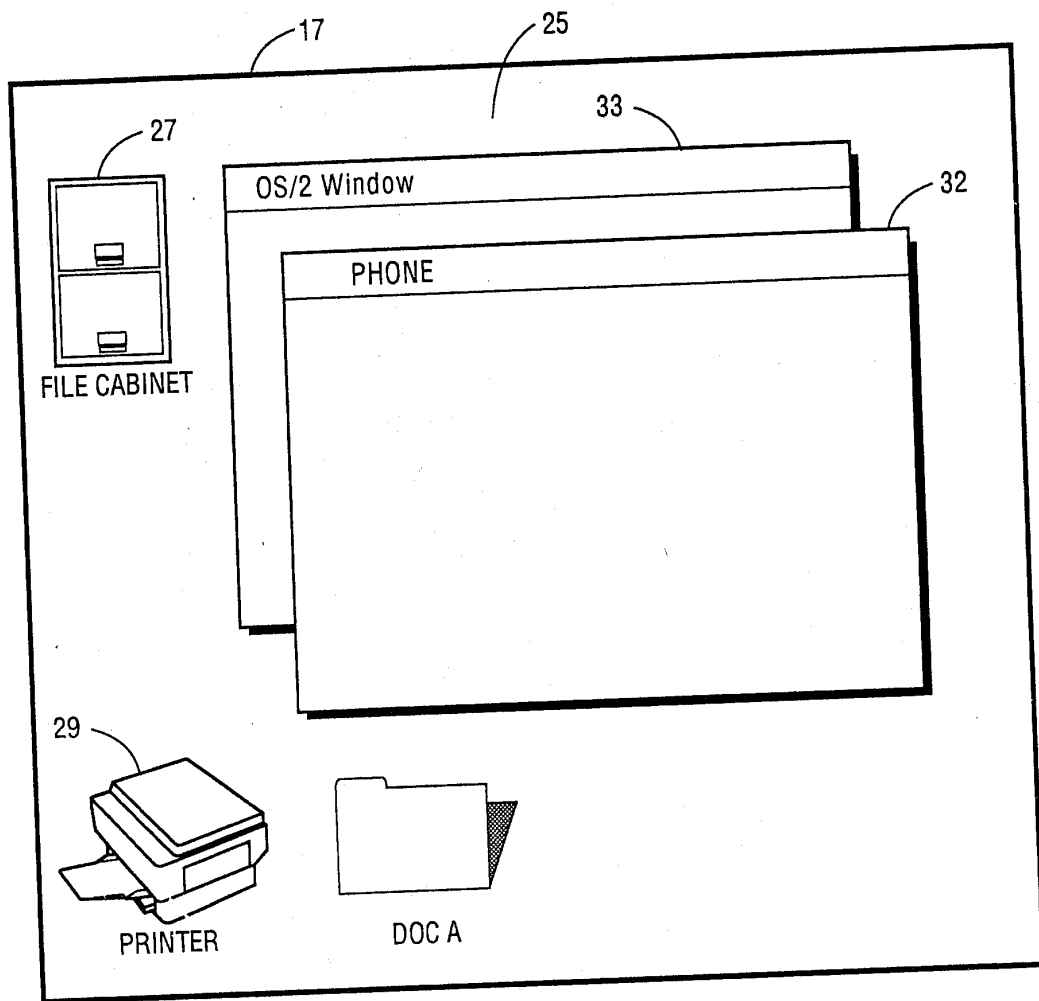


FIG. 3

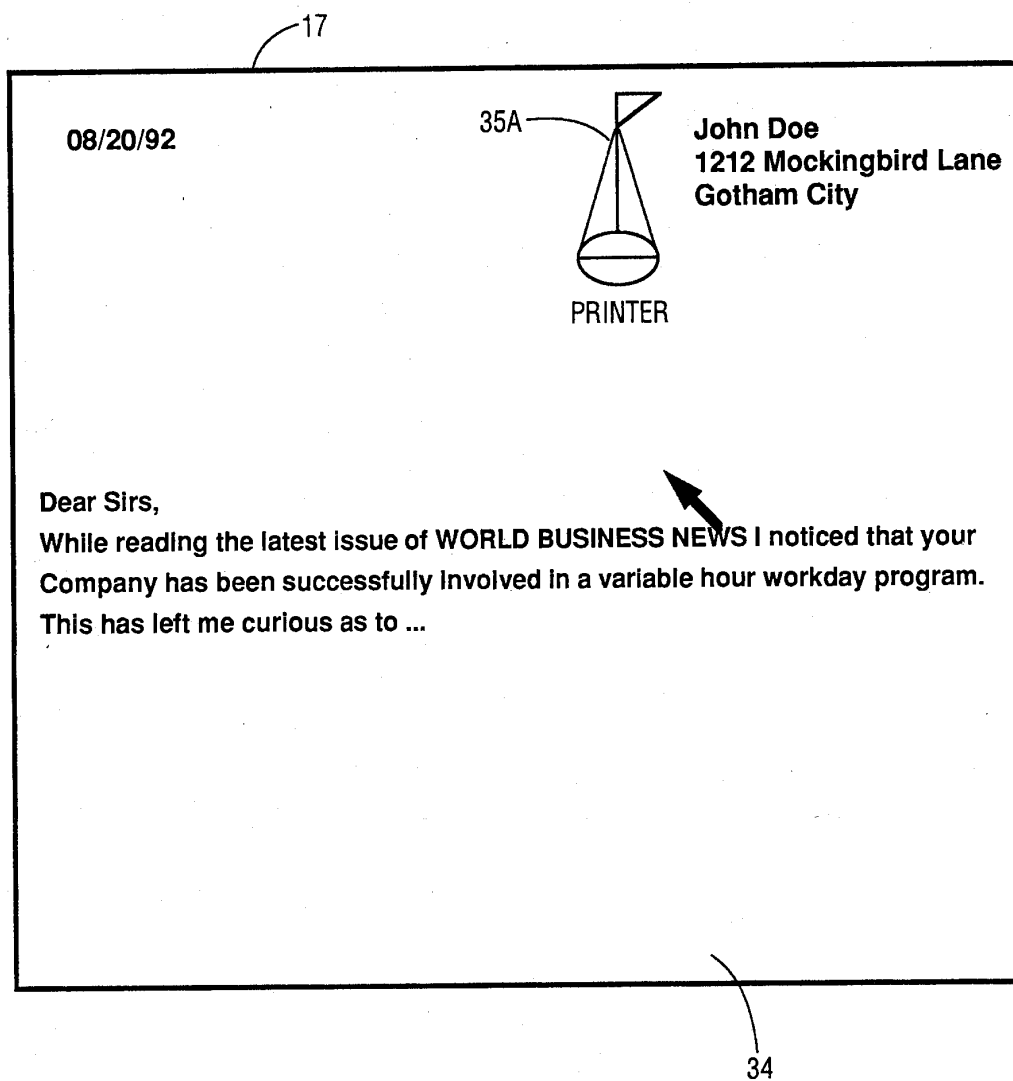


FIG. 4

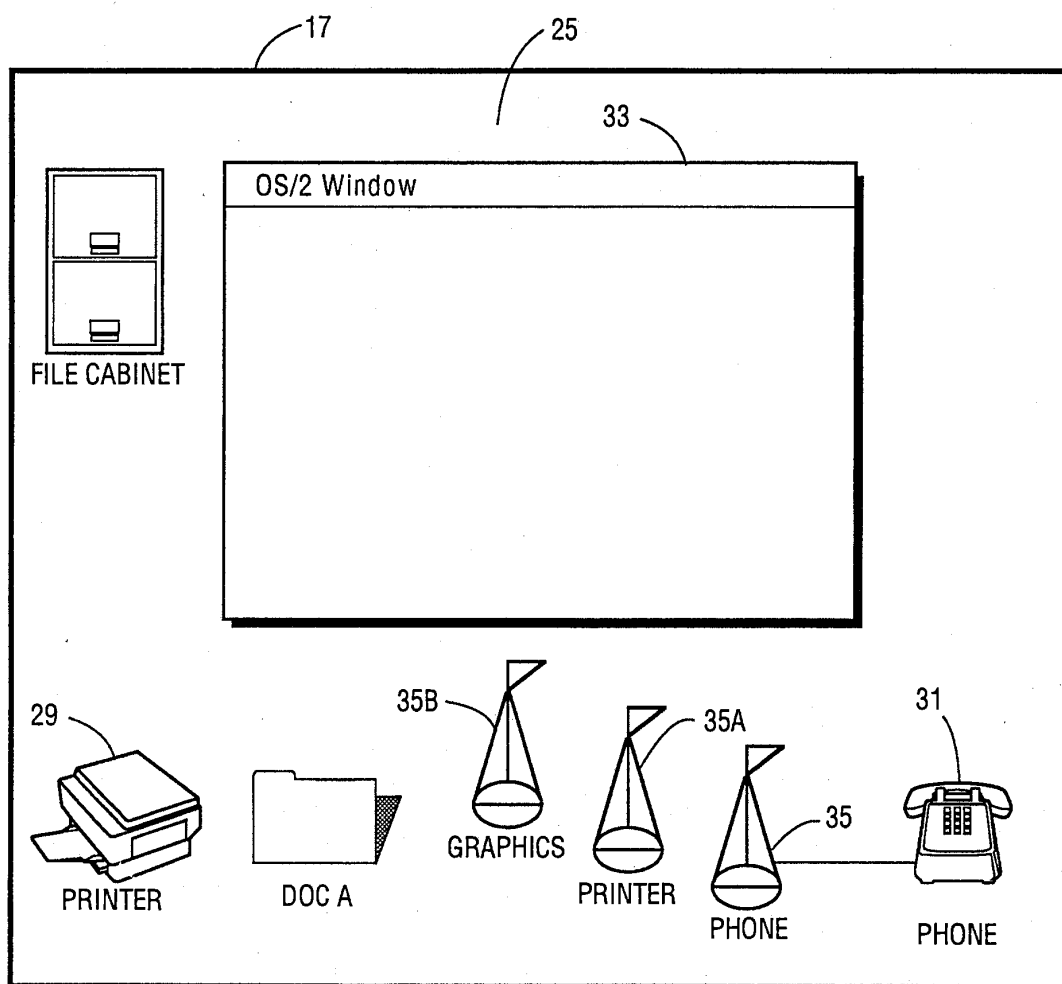


FIG. 5

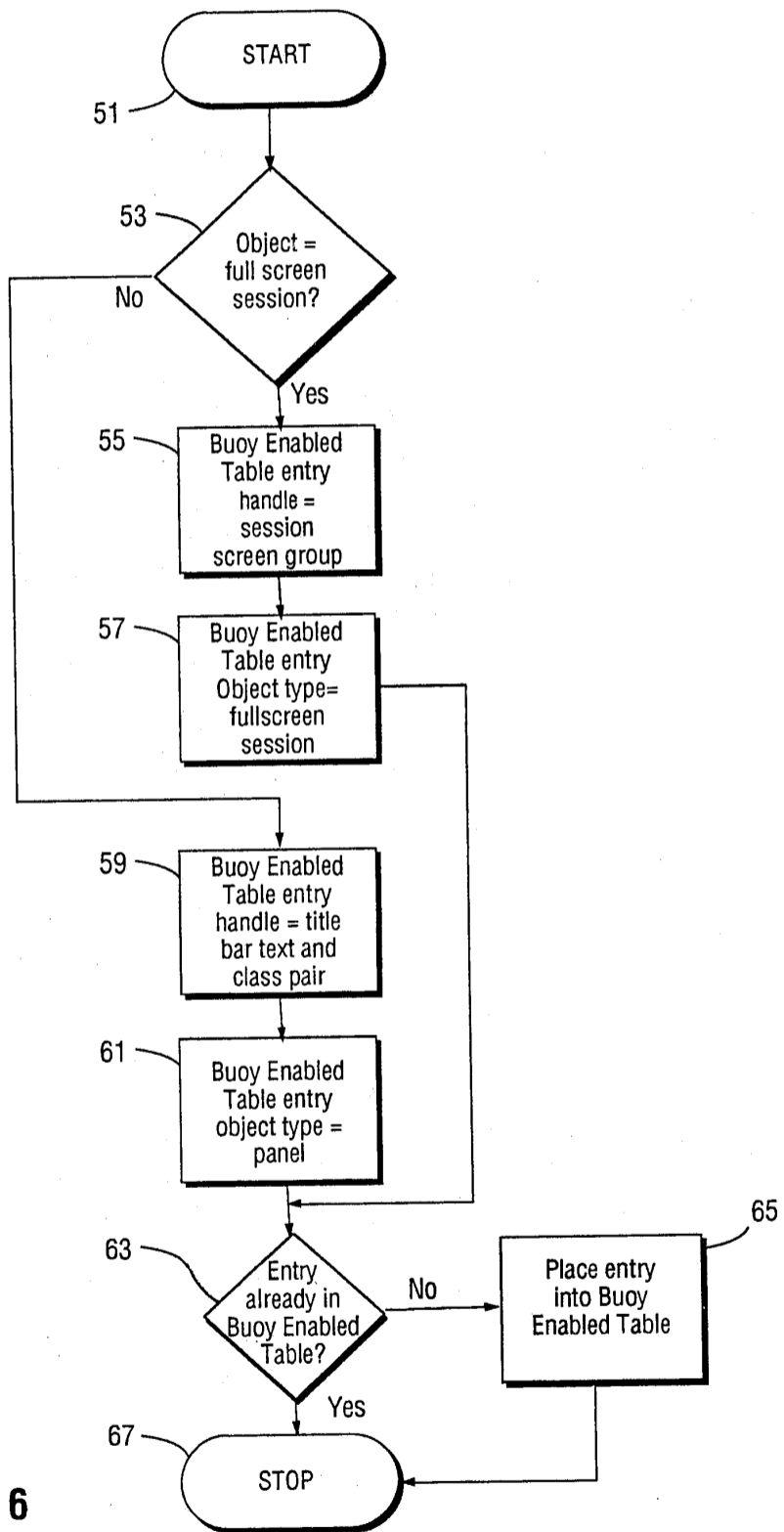


FIG. 6

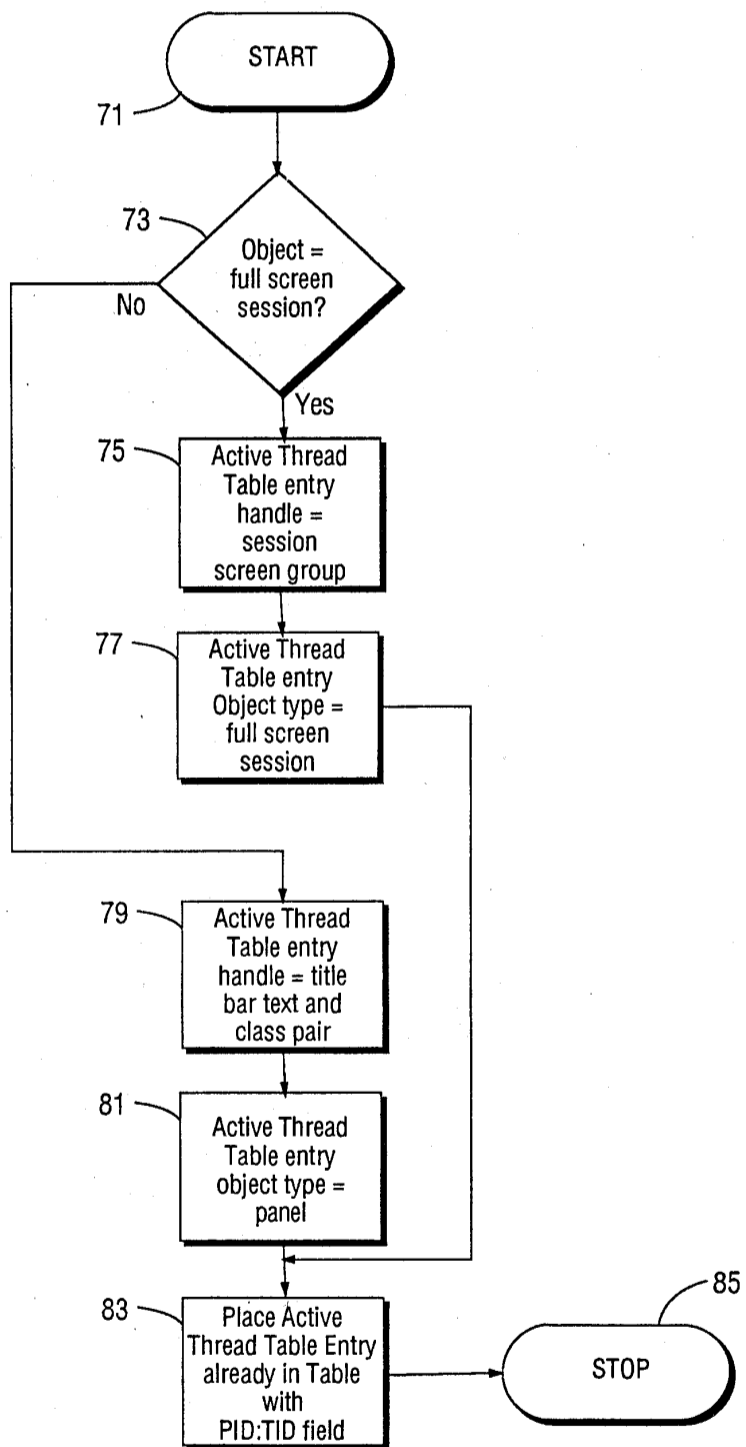


FIG. 7

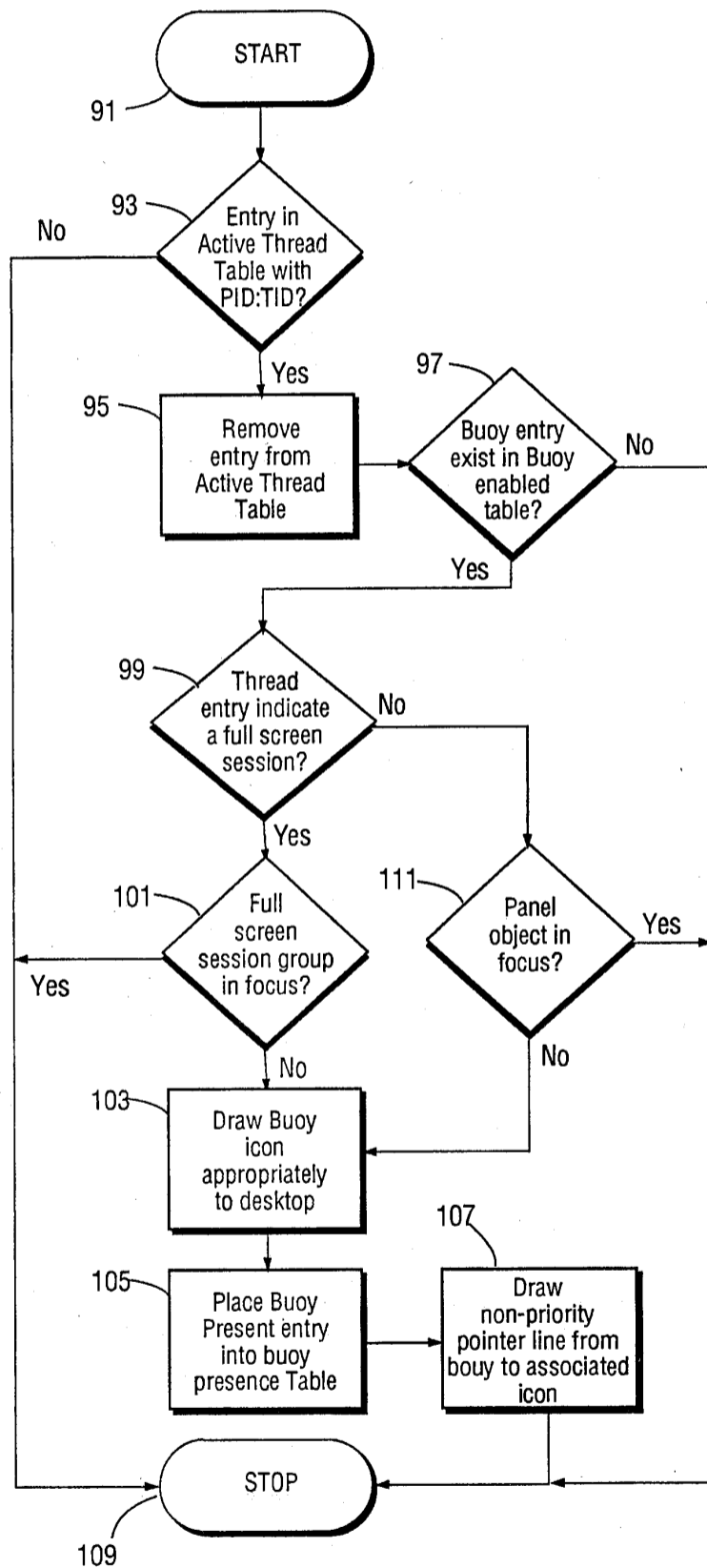


FIG. 8

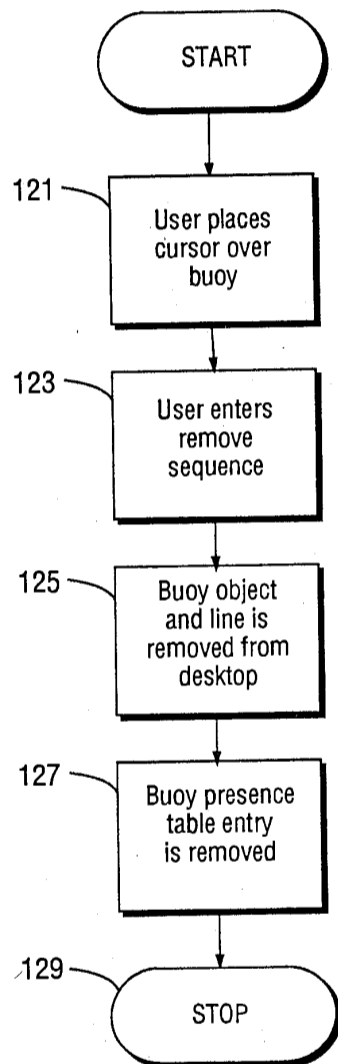


FIG. 9

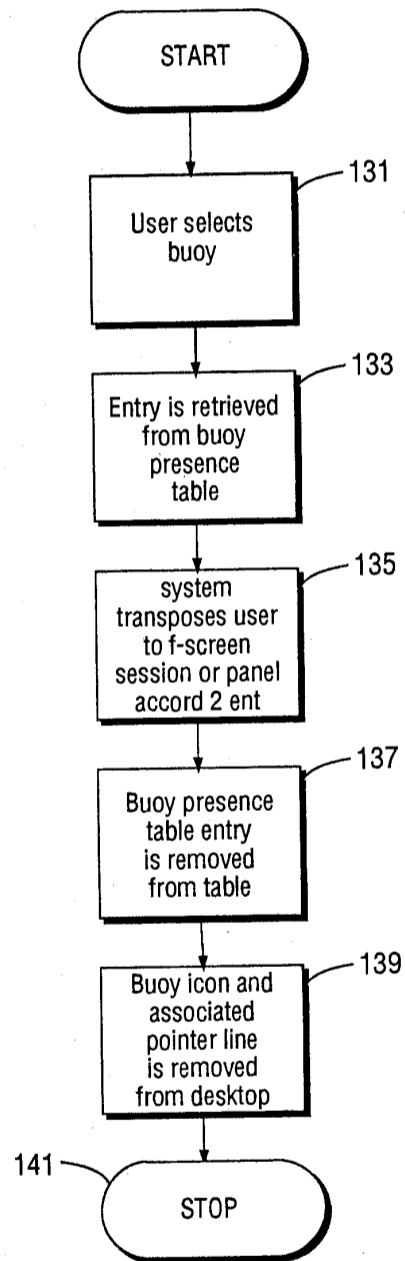


FIG. 10

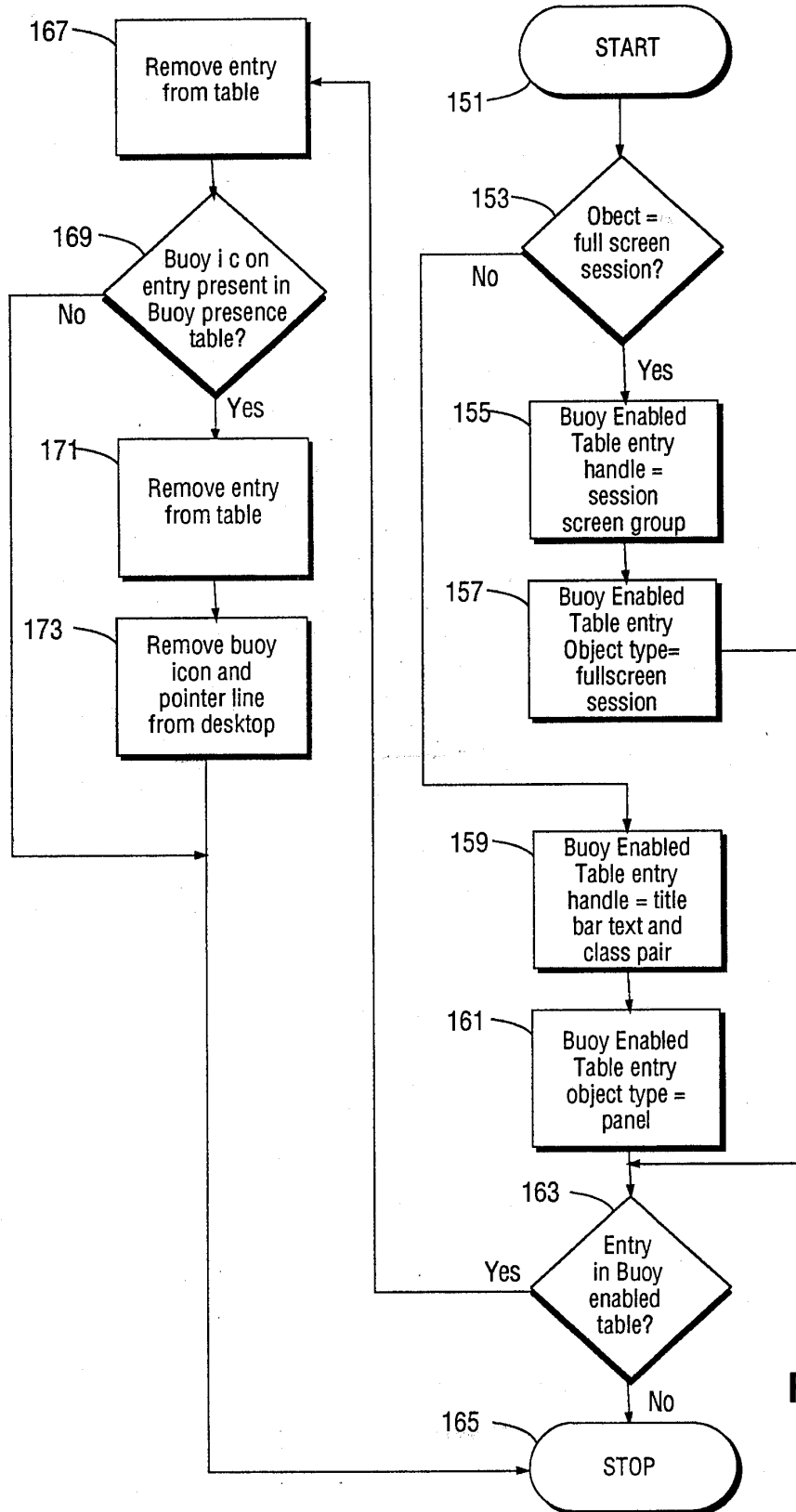


FIG. 11

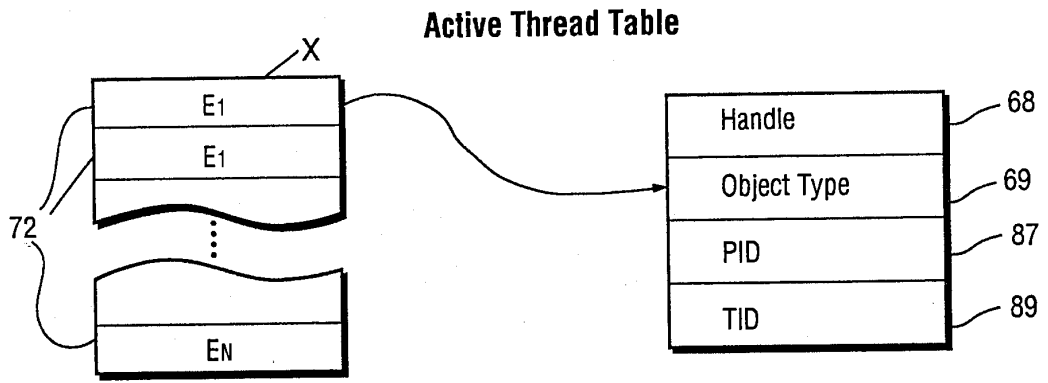


FIG. 12

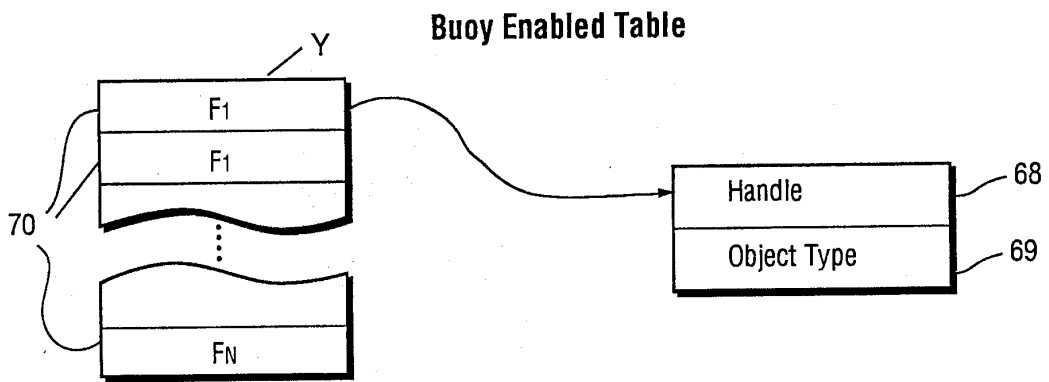


FIG. 13

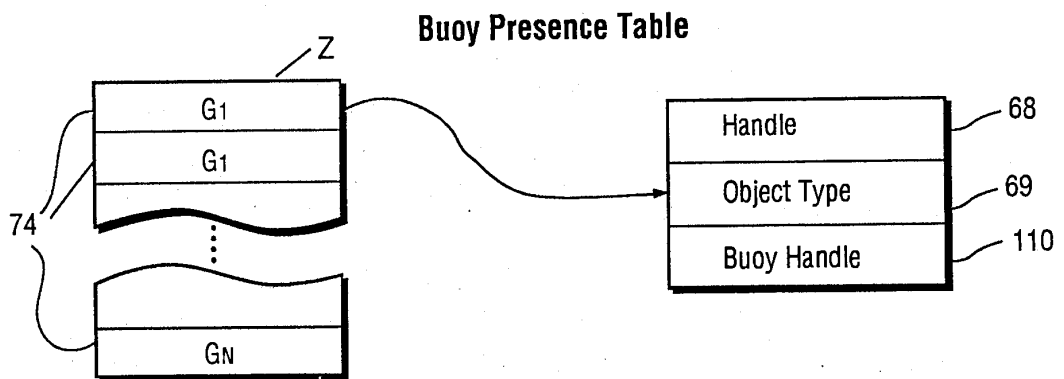


FIG. 14



PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Box ISSUE FEE**
Commissioner for Patents
Washington, D.C. 20231
Fax (703)746-4000

CW
B\$

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any correction or use Block 1)
7590 07/19/2002

GEOFFREY A. MANTOOTH DECKER, JONES,
MCMACKIN, MCCLANE, HALL & BATES, P.C.
BURNETT PLAZA
801 CHERRY STREET SUITE 2000
FORTWORTH, TX 76102-6836

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO. 08/586,149	FILING DATE 01/11/1996	FIRST NAMED INVENTOR WILLIAM J. JOHNSON	ATTORNEY DOCKET NO. DM-177	CONFIRMATION NO. 3171
-------------------------------	---------------------------	--	-------------------------------	--------------------------

TITLE OF INVENTION: BUOY ICON NOTIFICATION OF OBJECT INTERFACE ACCESSIBILITY IN MULTITASKING COMPUTER ENVIRONMENT

APPLN. TYPE nonprovisional	SMALL ENTITY NO	ISSUE FEE \$1280	PUBLICATION FEE \$0	TOTAL FEE(S) DUE \$1280	DATE DUE 10/21/2002
-------------------------------	--------------------	---------------------	------------------------	----------------------------	------------------------

EXAMINER BANANKHAH, MAJID A	ART UNIT 2156	CLASS-SUBCLASS 345-772000
--------------------------------	------------------	------------------------------

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Geoffrey A. Mantooth
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

International Business
Machines Corporation

Armonk, New York

Please check the appropriate assignee category or categories (will not be printed on the patent)

individual corporation or other private group entity government

4a. The following fee(s) are enclosed:

4b. Payment of Fee(s):

Issue Fee

A check in the amount of the fee(s) is enclosed.

Publication Fee

Payment by credit card. Form PTO-2038 is attached.

Advance Order - # of Copies 10

The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 09-0461 (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

(Date)

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

10/18/2002 BNGUYEN2 00000124 090461 08586149

01 FC:1501 1280.00 CH
02 FC:8001 30.00 CH

TRANSMIT THIS FORM WITH FEE(S)

PTOL-85 (REV. 04-02) Approved for use through 01/31/2004. OMB 0651-0033

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 1995

Application or Docket Number

586 149

CLAIMS AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	27 minus 20 = *	7
INDEPENDENT CLAIMS	2 minus 3 = *	
MULTIPLE DEPENDENT CLAIM PRESENT		

* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	FEE		RATE	FEE
	375.00	OR		750.00
x\$11=		OR	x\$22=	154
x39=		OR	x78=	
+125=		OR	+250=	
TOTAL		OR	TOTAL	904

CLAIMS AS AMENDED - PART II

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT	(Column 2) MINUS	(Column 3) HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
AMENDMENT A	D			
Total	* 25	Minus	** 27	= -
Independent	* 2	Minus	*** 3	= -
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
x\$11=		OR	x\$22=	
x39=		OR	x78=	
+125=		OR	+250=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT	(Column 2) MINUS	(Column 3) HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
AMENDMENT B				
Total	*	Minus	**	=
Independent	*	Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
x\$11=		OR	x\$22=	
x39=		OR	x78=	
+125=		OR	+250=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT	(Column 2) MINUS	(Column 3) HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
AMENDMENT C				
Total	*	Minus	**	=
Independent	*	Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
x\$11=		OR	x\$22=	
x39=		OR	x78=	
+125=		OR	+250=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

RE DAS-92-0592

Docket# DA9-93-007

FILE: \$INFOGA1 201 National VM/ESA Conversation. Monitor System

*** DATA BASE : TDBS -
01 SEARCH DA8900024

PAGE 1

*** ** DOCUMENT NO. AAA90A064006 *** **

TITLE Presentation of Prompt Information. September 1990.
ORDER 90A 64006
LOCATION Dallas
AUTHOR Kahl, DJ Keane, PJ
DISCLOSUR Research Disclosure n317 09-90
DOCKET DA8900024
TEXT

This article discusses extensions to existing "prompt" techniques. Many computer systems today permit users to request a list of potential values to complete a field. This is called "prompting"; CUA 1987 documented this technique. CUA 1989 enhanced it by defining an icon (graphic) to place next to entry fields where prompt information is available. Clicking on the icon allows users to access the prompt information.

The prompt notion is a good one, but current architecture is not general enough -- it permits only a list of potential values. The value domain for many fields does not lend itself to list-based presentations.

Following the current CUA guidelines, application developers who need to provide prompting must present prompt information in a list or define another graphic to display prompt information in a familiar manner. The former inhibits usability while the latter inhibits transfer of learning as there will be too many icons doing the same basic thing.

We propose extending the notion of prompting to allow presentation of prompt information in a familiar manner. Consider this simple example:

A user needs to enter a date, e.g., 4 Jul 1989, in a field. If the field is enabled for prompting, the user is better served with a calendar "month" display than with a list of dates. The user can easily cursor to the correct date or change the month or the year.

As you can see, presenting this information in the same manner the user thinks about it makes it easier to use. Other examples are provided.

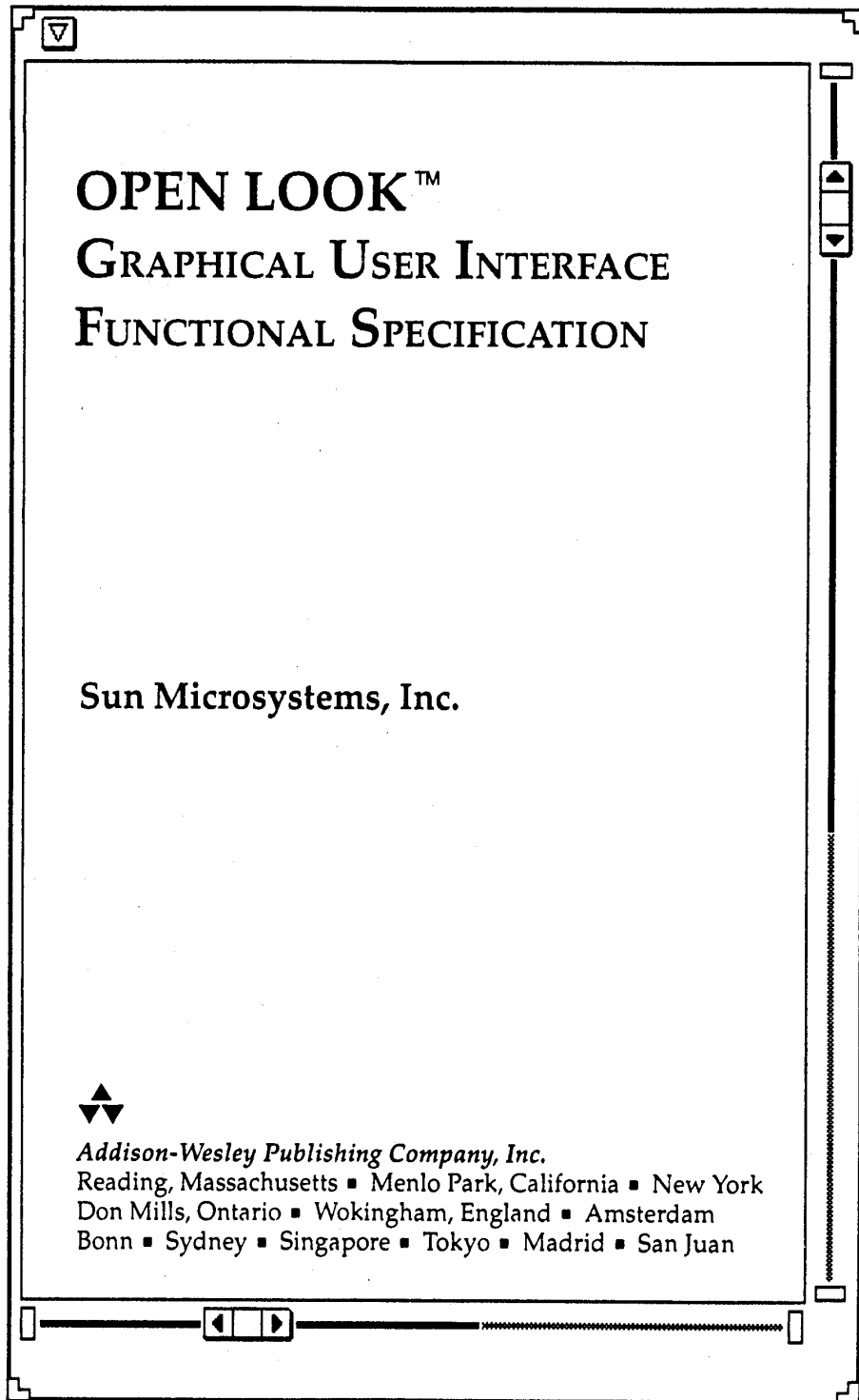
This extension permits input assistance via prompting for fields whose potential values cannot be displayed nicely in a list. Providing a display of values more suitable to the problem domain will increase software usability. It will also help transfer of learning: users will understand that the CUA prompt icon means they can see a set of potential values for a field displayed in a manner consistent with the problem domain.

Disclosed anonymously.

END OF PRINTOUT

RE: DA8-92-0542

Docket # DA9-93-027



All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Sun Microsystems, Inc. Printed in the United States of America. Published simultaneously in Canada.

The OPEN LOOK Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a nonexclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees.

UNIX is a registered trademark of AT&T.
OPEN LOOK is a trademark of AT&T.
The Sun logo is a registered trademark of Sun Microsystems, Inc.
Sun-4 is a trademark of Sun Microsystems, Inc.
Patent pending.

Library of Congress Cataloging-in-Publication Data
OPEN LOOK graphical user interface functional
specification/Sun Microsystems, Inc.

p. cm.

ISBN 0-201-52365-5

1. User interfaces (Computer systems) 2. Windows (Computer programs) 3. OPEN LOOK (Computer program) I. Sun Microsystems.

QA76.9.U83064 1989

005.4'3—dc20

89-38189

CIP

Copyright © 1989 by Sun Microsystems, Inc.

Sponsoring Editor: Carole McClendon
Cover Design: Hannus Design Associates
Text Design: Joyce C. Weston
Set in 11-point Helvetica Light by Inprint, Inc.

DEFGHIJ—MU—943210

Fourth Printing, September 1990.

You access help text in the following way:

- 1 Move the pointer to the object for which you want help.
- 2 Press the HELP key. A Help window is displayed. The pointer jumps to the pushpin in the Help window.
- 3 Click SELECT on the pushpin to dismiss the Help window. The Help window is dismissed, and the pointer jumps back to its last location.

Alternatively, you can move the pointer to another object in the same application and press the HELP key again. The new help text is displayed in the pane of the same Help window. As with all pop-up windows, once you move the pointer from its original position in the pop-up window, the pointer does not jump back when you dismiss the window.

The OPEN LOOK UI implementation determines whether or not output to the screen is frozen when a menu is displayed. When you use the HELP key while a menu is displayed, if the output to the screen is frozen, the menu is dismissed, the Help window is displayed showing help text for the object that was under the pointer (either the menu background or a specific control) when the menu was displayed, and the pointer jumps to the Help window.

If the output to the screen is not frozen, the Help window is displayed and the pointer remains on the menu. Pointer jumping is automatically suppressed in this situation so that you can read the help text and activate the control immediately if it is the one you want to use.

The OPEN LOOK UI does not specify how help text strings are referenced, how objects are linked to the help text, or where the messages are stored.

Notices

Notices are used to confirm major operations that cannot be undone and to report serious warnings and errors. Notices differ from other pop-up windows in the following ways:

- Notices are initiated by the application.
 - Notices consist of a few sentences that describe the situation and tell you how to proceed.
 - Notices limit the choices you can make to a few buttons.
 - Notices cannot be moved.
 - A default button is always specified.
 - Notices do not have headers and footers.
-

- Notices are displayed in a font that is one scaling size larger than the window font to attract attention. When the window is in the largest font, the Notice uses that font.
- Notices block input to the originating application, not to the entire screen.
- When a Notice is displayed, the OPEN LOOK UI implementation flushes the buffer queue, discarding keystrokes and mouse clicks for the application. Flushing the buffer queue prevents you from inadvertently dismissing a Notice by typing or mousing ahead.

The Notice Window

The Notice window has the following required elements:

- A 2-point border with a pane positioned 2 points from the Notice border.
- At least one button.

When the OPEN LOOK UI implementation can support nonrectangular shapes, the Notice has an optional three-dimensional triangular shadow pointing to the place on the screen that originated the Notice, as shown in Figure 3-45.

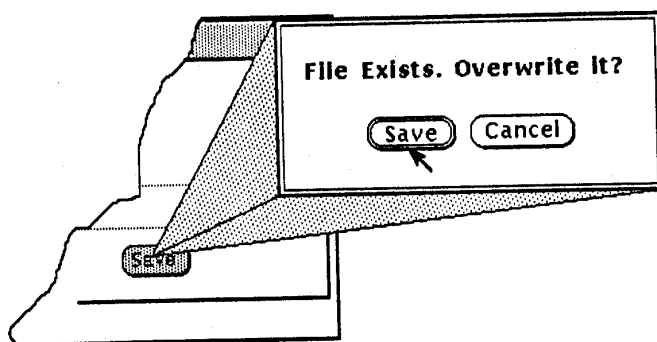


Figure 3-45 A sample Notice.

Notice Use and Placement

The Notice window pops up from the place of origin of the Notice function to give you a visual reminder of the action that originated the Notice. The pointer jumps to the default button but is not constrained to the buttons. The header of the base window and any open pop-up windows of the application that generated the Notice display the standard busy pattern. When you click SELECT on one of the buttons, the Notice is dismissed and the pointer jumps back to its last location.

You can move the pointer out of the Notice and perform operations in other windows. However, if you do this, when you return to the Notice and choose an option, the pointer will not jump back.

Buttons in a Notice are centered under the text within the pane. The application specifies where the text lines are broken. When the application does not specify where to break the lines, the OPEN LOOK UI implementation, by default, breaks the text to keep the area of the Notice as close to square as possible to avoid creating long skinny rectangles.

Notices always pop up toward the center of the screen. In the example shown in Figure 3-45, the originating window is in the lower left corner of the screen. Figure 3-46 shows the same Notice when the originating window is positioned in the upper right corner of the screen.

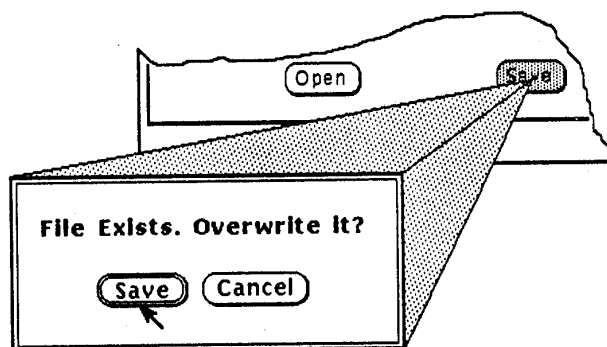


Figure 3-46 The Notice window is always displayed toward the center of the screen.

When the Notice originates from a pop-up menu that has been removed, the menu is redisplayed when the implementation can support that function.

On a small screen, the implementation automatically adjusts the Notice window and its associated shadow so that the buttons always remain on the screen. Figure 3-47 shows the progression of steps an implementation takes to make sure the useful part of the Notice always remains visible. In the top example, the space between the Notice window and the originating button has been shortened. In the second example, the shadow is displayed from one side of the window. In the third example, the originating button is under the Notice, and no shadow is displayed. In the extreme case (not shown), the borders of the Notice window are moved off the screen.

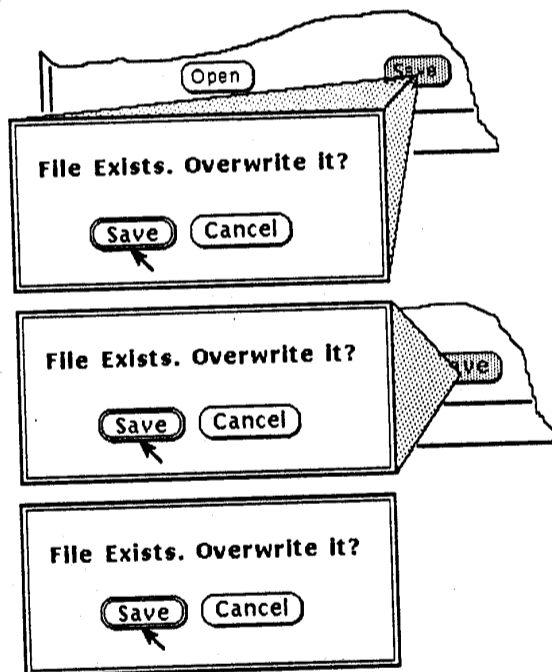


Figure 3-47 The Notice shadow is automatically adjusted to keep the Notice window on the screen.

The *OPEN LOOK Graphical User Interface Application Style Guidelines* provides suggestions for Notice messages and layout.

RE: DA8-92-0592

DOCKET# DA993-027



Systems Application Architecture

SC26-4582-0

Common User Access

Advanced Interface Design Guide

This edition applies to this release of *Systems Application Architecture, Common User Access: Advanced Interface Design Guide*, and to all subsequent versions, releases, and modifications until otherwise indicated in new editions.

Figures included in this document, including icons, illustrate concepts that are presented and are not necessarily accurate in content, appearance, or specific behavior.

The implementation in specific IBM products of any new user interface functions or capabilities described in this book is subject to normal IBM business and technical reviews.

Order publications through your IBM representative or the IBM branch office serving your locality. Publications are not stocked at the address given below.

A form for reader's comments appears at the back of this publication. If the form has been removed, address your comments to:

International Business Machines Corporation
Department 2B3, Internal Zip 4601
P.O. Box 1328
Boca Raton, FL 33429-9960

When you send information to IBM, you grant IBM a non-exclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

First Edition (June, 1989)

©Copyright International Business Machines Corp., 1989. All rights reserved.
Note to US Government users - Documentation related to Restricted Rights - Use, duplication, or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

Chapter 8. Informing Users

In the highly interactive, multitasking environment of the OS/2 operating system, users continuously request that the computer perform various operations, many of which can be done at the same time. This continuous communication between users and the computer requires a well defined set of communication facilities to keep users informed of the progress of their requests. This chapter describes the graphical and audible feedback mechanisms and the messages that are defined by the Common User Access to support the communication between users and the computer.

Graphical Feedback

Graphical feedback is used when users request that the computer perform a certain operation, but the computer cannot satisfy the request immediately. When this happens, the application may be unavailable for user input so your application must tell users that this situation exists.

Two methods are frequently used to tell users that an application is unavailable: changing the mouse pointer to an hourglass or displaying a progress indicator. Following are descriptions of these two methods, including rationale for their use. These methods are intended to be examples and may not cover every situation. You may create your own methods of graphical feedback to best fit your specific situation.

Hourglass Pointer

The application should change the shape of the mouse pointer to an hourglass pointer when the computer is performing simple operations, such as opening or saving a file. The *hourglass pointer* provides visual feedback to users. It shows users that the function they requested is in process. It also reminds users that additional user requests cannot be accepted until the hourglass pointer changes back to its previous shape. Figure 49 shows the hourglass pointer.



Figure 49. *Hourglass Pointer.* The mouse pointer changes shape to an hourglass pointer to graphically show users that a user-requested computer function is in process and that additional user requests cannot be accepted.

Progress Indicators

A *progress indicator* should be displayed to keep users informed of the status of user requests that are complex. Actions such as formatting a disk or transferring several files from a programmable workstation to a host system are complex and may take a long time for the computer to complete.

Figure 50 on page 84 shows an example of a progress indicator.

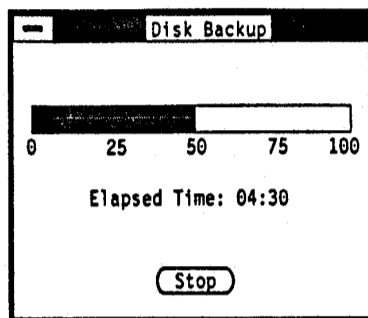


Figure 50. Progress Indicator.

The progress indicator in Figure 50 is a modal dialog box that contains several elements. At the top of the dialog box, information tells users about any exception conditions the computer detected during the execution of the task or any other relevant progress information. A rectangle appears below the text, showing the progress of a task toward completion. An inverse-color fill moves along the rectangle in relation to the progress of the task. A scale below the rectangle is marked in application-defined increments to signify relative completion. If the nature of the task being performed is such that it is not possible to assess the progress toward completion, you may omit the rectangle from the progress indicator dialog box. An active timer below the rectangle displays the elapsed time since the start of the task.

At the bottom of the window, a *Stop* pushbutton allows users to stop the computer process. When the computer stops a task in response to the *Stop* pushbutton, your application must ensure that the integrity of the system is maintained. For example, if users request *Stop* while a process is being performed repeatedly on several objects, it would not make sense for your application to attempt to restore the prior status for objects that were already processed. Your application must decide if it is appropriate for the computer to complete the requested processing for the current object before stopping or to restore the current object to its prior state. If the nature of the task can cause objects to be destroyed or become unusable if the process is stopped before completion, you should gray the *Stop* pushbutton as a visual cue to users.

Whenever possible, you should utilize the multiprocessing capabilities of the OS/2 operating system so users can continue to interact with the application.

Messages

Messages are feedback that tell users that something has happened because of a request they made. To provide a message to users, you can use a message box or a dialog box. A dialog box can be used when you need more capability than a message box can provide. Messages should be modal with respect to the application. CUA defines three types of messages: information, warning, and action.

Every message box consists of an icon, explanatory text, and one or more pushbuttons. Following is a description of each message box component:

- A *unique icon* for each message type allows users to visually identify the type of message.

- The text explains the situation and may provide assistance. The text may be a statement or question.
- Pushbuttons allow users to interact with the message box. Specific pushbuttons appear in each type of message. The Help pushbutton is optional for all three types of messages.

All message boxes have *Application Name* as their window title.

Information Message

An *information message* tells users that a computer function is performing normally or has performed normally. Figure 51 shows an example of an information message. The displayed icon is unique for all information messages. Text would appear at the right of the icon.

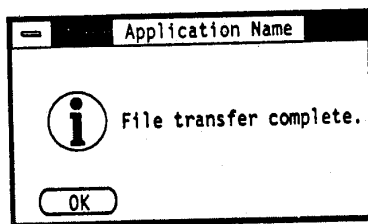


Figure 51. Information Message

Information messages have the OK pushbutton so users can tell the computer they are aware of the situation that is described in the message box. When users select OK, the message is removed.

You can provide, as an option, a Help pushbutton. Do not provide a beep when you display an information message.

Warning Message

A warning message tells users that a potentially undesirable situation could occur. Users only need to respond to the message to continue. However, corrective action may be required later to avoid an error situation. Figure 52 shows an example of a warning message. The displayed icon is unique for all warning messages. Text would appear at the right of the icon to describe the situation.

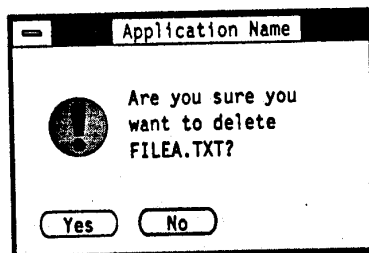


Figure 52. Warning Message. A warning message tells users that a condition exists that may require that users perform or confirm some action.

Warning messages can contain the following pushbuttons:

- **OK** is used in conjunction with **Cancel**. Users select **OK** to tell the application that they received the message and want to continue. When users select this pushbutton, the message is removed.
- **Cancel** is used in conjunction with **OK**. Users select **Cancel** to remove the message. When users select **Cancel**, the application does not take any action except to remove the message.
- **Yes** is used in conjunction with **No**. Users select **Yes** to give a positive response to a question.
- **No** is used in conjunction with **Yes**. Users select **No** to give a negative response to a question. You can also include a **Cancel** pushbutton if **Cancel** provides an action that is different than the action provided by **No**.

You can provide, as an option, a **Help** pushbutton. You should provide a beep when you display a warning message.

Action Message

An *action message* tells users that an exception condition has occurred. Users must perform an action to correct the situation.

Action messages are used in situations that range from minor application-related conditions that stop users from continuing with the current dialog to serious system-related conditions that stop users from continuing to work with any application in the system.

The text of the message should convey the severity of the exception condition and, if possible, should suggest an action that will correct the situation.

Figure 53 shows an example of an action message. The stop-sign icon is unique for all action messages. Text would appear at the right of the icon to describe the condition that users must correct.

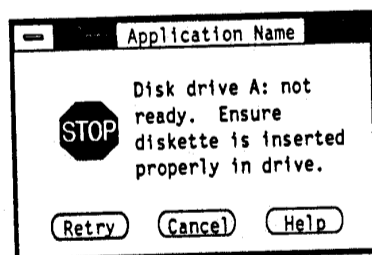


Figure 53. Action Message

Action messages can contain the following pushbuttons:

- **Retry** is used for device error messages. Selecting this pushbutton directs the application to attempt again to complete the process that caused the message. The **Retry** action assumes that users have taken some action to correct the error situation.
- **Cancel** can be used alone or in conjunction with **Retry**. When users select **Cancel**, the system does not take any action except to remove the message.

You can provide, as an option, a **Help** pushbutton. You should provide a beep when you display an action message.

Audible Feedback

Audible feedback is a beep from the computer that either warns users that they have performed an erroneous action or draws the users' attention to a certain situation or to specific information. Because the Presentation Manager allows users to turn off the beep, your application should not generate a beep unless the user setting for beep is turned on.

Following are some situations in which users should hear a beep:

- When your application displays warning and action messages. Your application provides the beep in this situation.
- When users type a character that is not a valid mnemonic in selection fields.
- When users attempt to select an unavailable (grayed) choice.

Docket # DA9-93-027

**OSF/Motif™
Style Guide**

Revision 1.1

(For OSF/Motif Release 1.1)

Open Software Foundation



Prentice Hall, Englewood Cliffs, New Jersey 07632

Cover design
and cover illustration: **BETH FAGAN**

This book was formatted with troff



Published by Prentice-Hall, Inc.
A Division of Simon & Schuster
Englewood Cliffs, New Jersey 07632

The information contained within this document is subject to change without notice.

OSF MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

OSF shall not be liable for errors contained herein or for incidental consequential damages in connection with the furnishing, performance, or use of this material.

All rights are reserved. No part of this publication may be photocopied, reproduced, or translated into another language without the prior written consent of the Open Software Foundation, Inc.

Copyright © 1991, 1990, Open Software Foundation, Inc.
Copyright © 1989 Digital Equipment Corporation
Copyright © 1987, 1988, 1989 Hewlett-Packard Company
Copyright © 1988 Massachusetts Institute of Technology
Copyright © 1988 Microsoft Corporation
ALL RIGHTS RESERVED

**FOR U.S. GOVERNMENT CUSTOMERS REGARDING THIS DOCUMENTATION
AND THE ASSOCIATED SOFTWARE**

Notice: Notwithstanding any other lease or license agreement that may pertain to, or accompany the delivery of, this computer software, the rights of the Government regarding its use, reproduction and disclosure are as set forth in the FAR Section 52.227-19 "Computer Software - Restricted Rights."

Unpublished - All rights reserved under the Copyright Laws of the United States.

This notice shall be marked on any reproduction of this data, in whole or in part.

Open Software Foundation, OSF, OSF/1, OSF/Motif, and Motif are trademarks of the Open Software Foundation, Inc.
DEC and DIGITAL are registered trademarks of Digital Equipment Corporation.
Microsoft is a registered trademark of Microsoft Corporation.
Presentation Manager is a trademark of International Business Machines Corporation.
X Window System is a trademark of the Massachusetts Institute of Technology.

Printed in the United States of America
10 9 8 7 6 5 4

ISBN 0-13-640616-5

Prentice-Hall International (UK) Limited, *London*
Prentice-Hall of Australia PTY. Limited, *Sydney*
Prentice-Hall Canada Inc., *Toronto*
Prentice-Hall Hispanoamericana, S.A., *Mexico*
Prentice-Hall of India Private Limited, *New Delhi*
Prentice-Hall of Japan, Inc., *Tokyo*
Simon & Schuster Asia Pte. Ltd., *Singapore*
Editora Prentice-Hall do Brasil, Ltda., *Rio de Janeiro*

DialogBox

Description

A DialogBox should be used to group components in a window secondary to the main tasks of the application. Although a DialogBox may contain any components, a simple DialogBox is composed of a Label and PushButtons for supplying a response to the DialogBox. The OSF/Motif toolkit provides a number of ready-designed DialogBoxes for common uses: CommandDialog, FileSelectionDialog, MessageDialog, PromptDialog, and SelectionDialog. There are also a number of different types of MessageDialogs: ErrorDialog, InformationDialog, QuestionDialog, WorkingDialog, and WarningDialog. The illustration on this reference page shows a typical DialogBox.

DialogBox PushButtons should use the following common labels and actions. The actions are in the approximate sequence in which they should appear in DialogBoxes.

- Yes** * Must indicate an affirmative response to a question posed in the DialogBox, and then close the window. While **Yes** is not an active-voice label, it implies a positive response to a question in a **QuestionDialog**. Only use **Yes** if it is a clear answer to the question.
- No** * Must indicate a negative response to a question posed in the DialogBox, and then close the window. While **No** is not an active-voice label, it implies a positive response to a question in a **QuestionDialog**. Only use **No** if it is a clear answer to the question.
- OK** * Must cause the application to apply any changes made in the DialogBox and dismiss the DialogBox. While **OK** is not an active-voice label, its usage is too common to change.
- Apply** * Must apply any changes made to components in the DialogBox.

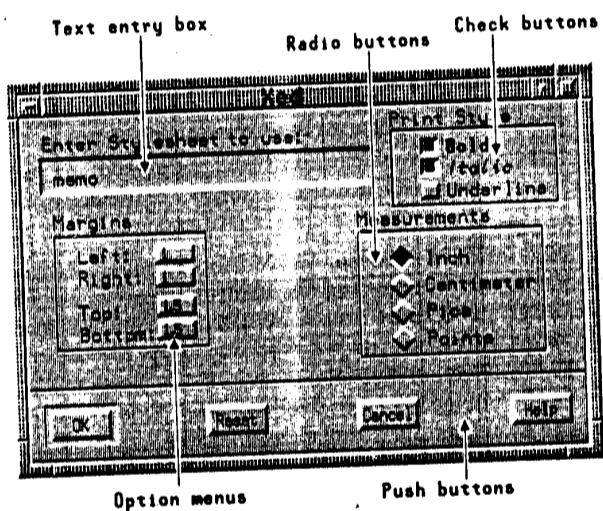
OSF/Motif Style Guide

DialogBox

- Retry** Must cause the task in progress to be attempted again. *
This action is commonly found in message boxes that report an error.
- Stop** Must end the task in progress at the next possible breaking point. This action is commonly found in progress message boxes. *
- Reset** Must cancel any user changes that have not been applied to the application. It must also reset the status of the DialogBox to the state since the last time the DialogBox action was applied or to the initial state of the DialogBox. * *
- Cancel** Must close the DialogBox without performing any DialogBox actions not yet applied to the application. Pressing **KCancel** anywhere in the DialogBox, except during a cancelable drag operation, must perform the action of this button. *
- Help ...** Must provide any help for the DialogBox. The ellipses should not be used if the help action is not provided in a new DialogBox. *

You should arrange PushButton actions in DialogBoxes like other PushButtons, according to order and frequency of use. The common action PushButtons should be ordered as presented in the previous section. Positive responses to the DialogBox should be presented first, followed by negative responses and canceling responses. **Help** should always be the last action on the right.

Illustration



Navigation

A DialogBox must follow the navigation model described in * Chapter 2.

Related Information

For more information, see the reference pages for CommandDialog, ErrorDialog, FileSelectionDialog, InformationDialog, MessageDialog, PromptDialog, QuestionDialog, SelectionDialog, WarningDialog, and WorkingDialog.

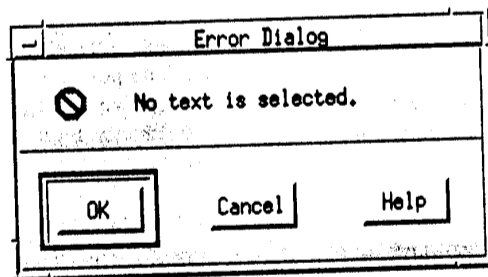
ErrorDialog

Description

An ErrorDialog should be used to convey a message about a user error. It should stop user interaction with the application until it is dismissed. It should include an error symbol, a message, and one of the following button arrangements.

OK Cancel
OK Cancel Help

Illustration



Related Information

For more information, see the reference page for DialogBox.

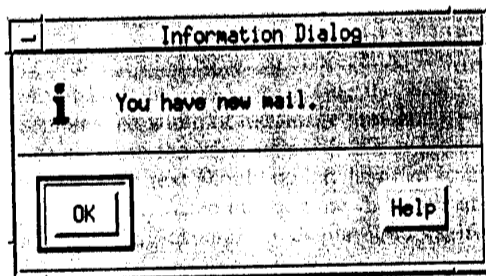
InformationDialog

Description

An InformationDialog should be used to convey information to the user. It must not interrupt the user's interaction with the application. It should include an information symbol, a message, and one of the following button arrangements.

OK
OK Help

Illustration



Related Information

For more information, see the reference page for DialogBox.

MessageDialogs

Description

MessageDialogs should be used to convey a message to the user. *
They must not interrupt the user's interaction with the application.
They should include a message, and one of the following button arrangements.

OK
OK Help
OK Cancel
OK Cancel Help
Yes No
Yes No Help
Yes No Cancel
Yes No Cancel Help
Cancel
Cancel Help
Retry Cancel
Retry Cancel Help

There are a number of different types of MessageDialogs:
ErrorDialog, InformationDialog, QuestionDialog, WorkingDialog,
and WarningDialog.

Related Information

For more information, see the reference pages for DialogBox,
ErrorDialog, InformationDialog, QuestionDialog, WorkingDialog,
and WarningDialog.

PromptDialog

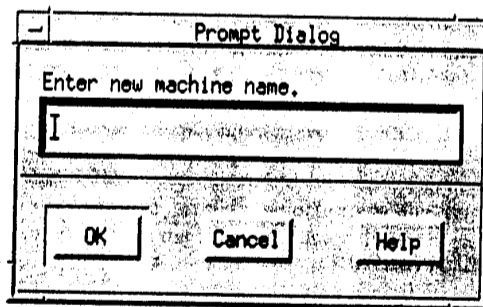
Rel

Description

A PromptDialog should be used to prompt the user for input. It can interrupt the user's interaction with the application. It should include a message, a text input area, and one of the following button arrangements.

- OK Cancel
- OK Cancel Help
- OK Apply Cancel
- OK Apply Cancel Help
- OK Apply Reset Cancel
- OK Apply Reset Cancel Help

Illustration



Related Information

For more information, see the reference page for DialogBox.

put. It can
It should
ving button

QuestionDialog

Description

A QuestionDialog should be used to get a user response to a question. It should interrupt the user's interaction with the application. It should include a question symbol, a message, and one of the following button arrangements.

Yes No

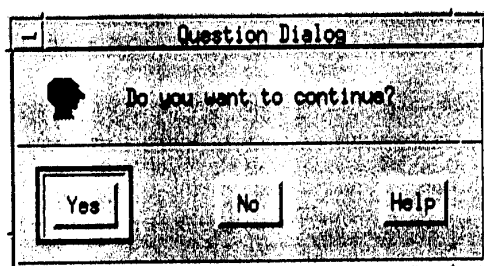
Yes No Help

It is possible that both the Yes and No actions of a QuestionDialog will perform an action. If this is the case, the QuestionDialog should use one of the following button arrangements:

Yes No Cancel

Yes No Cancel Help

Illustration



Related Information

For more information, see the reference page for DialogBox.

e to a
th the
ge, and

uestion
uestion
nts:

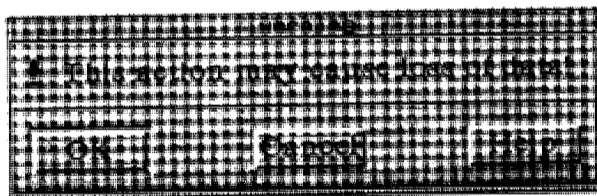
WarningDialog

Description

A WarningDialog should be used to alert the user to a possible danger. It should interrupt the user's interaction with the application. It should contain a warning symbol, a message, and one of the following button arrangements.

Yes No
Yes No Help
OK Cancel
OK Cancel Help

Illustration



Related Information

For more information, see the reference page for DialogBox.

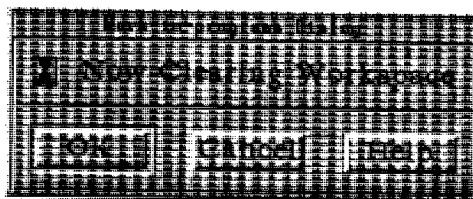
WorkingDialog

Description

A WorkingDialog should be used to show work in progress and give the user an opportunity to cancel the operation. It should not interrupt the user's interaction with the application. It should contain a working symbol, a message, and one of the following button arrangements,

OK Cancel
OK Cancel Help

Illustration



Related Information

For more information, see the reference page for DialogBox.