

PATENT APPLICATION SERIAL NO. 09/400413

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

09/29/1999 SEARCH 00000002 09400413

01 FC:201	380.00 OP
02 FC:202	78.00 OP
03 FC:203	207.00 OP

PTO-1556
(5/87)

*U.S. GPO: 1998-433-214/80404



Docket No. 3125-400

Express Mail Label No. EJ917774582US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

UTILITY APPLICATION AND APPLICATION FEE TRANSMITTAL (1.53(b))

ASSISTANT COMMISSIONER FOR PATENTS
Box Patent Application
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the patent application of

Named Inventor(s) and
Address(es):

Keith R. McNally, Santa Clarita, CA; William H. Roof, San Diego, CA; Richard Bergfeld, Chatsworth, CA

For:

INFORMATION MANAGEMENT AND SYNCHRONOUS COMMUNICATIONS
SYSTEM WITH MENU GENERATION

Enclosed are:

[X] 26 page(s) of specification, 1 page(s) of Abstract, 9 page(s) of claims

[X] 7 sheets of drawing [] formal [x] informal

[X] 6 page(s) of Declaration and Power of Attorney

- [X] Unsigned
- [] Newly Executed
- [] Copy from prior application

[] Deletion of inventors including Signed Statement under 37 C.F.R. § 1.63(d)(2)

[] Incorporation by Reference: The entire disclosure of the prior application, from which a copy of the combined declaration and power of attorney is supplied herein, is considered as being part of the disclosure of the accompanying application and is incorporated herein by reference.

[] Microfiche Computer Program (Appendix)

[] _____ page(s) of Sequence Listing

- [] computer readable disk containing Sequence Listing
- [] Statement under 37 C.F.R. § 1.821(f) that computer and paper copies of the Sequence Listing are the same

492242_1

- ☐ Claim for Priority
- ☐ Certified copy of Priority Document(s)
- ☐ English translation documents
- ☐ Information Disclosure Statement
- ☐ Copy of ____ cited references
- ☐ Copy of PTO-1449 filed in parent application serial No. _____
- ☐ Preliminary Amendment
- ☒ Return receipt postcard (MPEP 503)
- ☐ Assignment Papers (assignment cover sheet and assignment documents)
- ☐ A check in the amount of \$40.00 for recording the Assignment.
- ☐ Assignment papers filed in parent application Serial No. _____
- ☐ Certification of chain of title pursuant to 37 C.F.R. § 3.73(b).
- ☐ This is a ☐ continuation ☐ divisional ☐ continuation-in-part (C-I-P) of prior application serial no. _____
- ☐ Cancel in this application original claims _____ of the parent application before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
- ☐ A preliminary Amendment is enclosed. (Claims added by this Amendment have been properly numbered consecutively beginning with the number following the highest numbered original claim in the prior application.
- ☐ The status of the parent application is as follows:
- ☐ A Petition For Extension of Time and a Fee therefor has been or is being filed in the parent application to extend the term for action in the parent application until _____
- ☐ A copy of the Petition for Extension of Time in the co-pending parent application is attached.
- ☐ No Petition For Extension of Time and Fee therefor are necessary in the co-pending parent application.
- ☐ Please abandon the parent application at a time while the parent application is pending or at a time when the petition for extension of time in that application is granted and while this application is pending has been granted a filing date, so as to make this application co-pending.
- ☐ Transfer the drawing(s) from the patent application to this application.
- ☐ Amend the specification by inserting before the first line the sentence:
This is a ☐ continuation ☐ divisional ☐ continuation-in-part of co-pending application Serial No. _____
_____ filed _____

I. CALCULATION OF APPLICATION FEE (For Other Than A Small Entity)

	Number Filed		Number Extra	Rate	Basic Fee
Total Claims	43	-20=	23	x\$18.00	\$414.00
Independent Claims	5	- 3=	2	x\$78.00	\$156.00
Multiple Dependent Claims	☐ yes ☒ no				
	Additional Fee = \$260.00				
	Add'l Fee = NONE				\$0

Total: \$ 1,330.00

- [X] A statement claiming small entity status is attached or has been filed in the above-identified parent application and its benefit under 37 C.F.R. § 1.28(a) is hereby claimed. Reduced fees under 37 C.F.R. § 1.9(F) (50% of total) paid herewith \$ 665.00.
- [X] A check in the amount of \$665.00 in payment of the application filing fees is attached.
- [] Charge Fee(s) to Deposit Account No. 13-4500. Order No. _____. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- [X] The Assistant Commissioner is hereby authorized to charge any additional fees which may be required for filing this application, or credit any overpayment to Deposit Account No. 13-4500, Order No. 3125-4002. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: September 21, 1999

By: John W. Osborne
 John W. Osborne
 Registration No. 36,231

CORRESPONDENCE ADDRESS:

MORGAN & FINNEGAN, L.L.P.
 345 Park Avenue
 New York, New York 10154
 (212) 758-4800
 (212) 751-6849 Facsimile

FORM: UTL-TRAN.NY
 Rev. 11/13/98

66F260-EPH00460

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Keith R. McNally
William H. Roof
Richard Bergfeld
Group Art Unit : TBA

Serial No. : TBA
Examiner: TBA

Filed : September 21, 1999

For : **INFORMATION MANAGEMENT AND SYNCHRONOUS
COMMUNICATIONS SYSTEM WITH MENU GENERATION**

EXPRESS MAIL CERTIFICATE

Assistant Commissioner for Patents
Washington, D.C. 20231

Express Mail Label No. EJ917774582US

Date of Deposit September 21, 1999

I hereby certify that the following attached paper(s) and/or fee

Application with 43 claims, 7 sheets of drawing figures; one (1) page abstract
Application Fee Transmittal;
Filing Fee in the amount of \$665.00;
Combined Declaration and Power of Attorney (unsigned);
Statement (Declaration) Claiming Small Entity Status; and
Return receipt postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37

C.F.R. §1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington,
D.C. 20231.

Francisco Garcia

(Typed or printed name of person
mailing paper(s) and/or fee)

Francisco Garcia
(Signature of person mailing
paper(s) and/or fee)

CORRESPONDENCE ADDRESS:
MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, New York 10154
(212) 758-4800
(212) 751-6849 Facsimile

492111_1

2700 INTERNAL TRANSFER REQUEST FOR S.N.

DATE: <u>2/15/00</u>	FROM: <u>Bourque</u> STEPHEN HONG (print name) <u>PRIMARY EXAMINER</u> / <u>2776</u>
FORWARD TO:	REASON(S):
A. Art Unit: <u>2773</u>	A. You had Parent ☐ (check box)
B. Class: <u>345</u>	B. See Title ☐ (check box)
C Subclass: <u>353</u>	C. See Abstract ☒ (check box)
	D. See Claim(s): ☒ (check box)

FURTHER EXPLANATION IF NEEDED:

user interface; sub-menus generating

DATE: _____	FROM: _____ (print name)
FORWARD TO:	REASON(S):
A. Art Unit: _____	A. You had Parent ☐ (check box)
B. Class: _____	B. See Title ☐ (check box)
C Subclass: _____	C. See Abstract ☐ (check box)
	D. See Claim(s): _____

FURTHER EXPLANATION IF NEEDED:

DATE: _____	FROM: _____ (print name)
FORWARD TO CLASSIFIER	REASON(S):
	A. You had Parent ☐ (check box)
	B. See Title ☐ (check box)
	C. See Abstract ☐ (check box)
	D. See Claim(s): _____

FURTHER EXPLANATION IF NEEDED:

DISPOSITION BY 2700 CLASSIFICATION

DATE: _____	CLASSIFIER: _____
FORWARD TO:	REASON(S):
A. Art Unit: _____	A. You had Parent ☐ (check box)
B. Class: _____	B. See Title ☐ (check box)
C Subclass: _____	C. See Abstract ☐ (check box)
	D. See Claim(s): _____

FURTHER EXPLANATION IF NEEDED:

UNITED STATES PATENT APPLICATION

**OF: KEITH R. McNALLY
WILLIAM H. ROOF
RICHARD BERGFELD**

**FOR: INFORMATION MANAGEMENT AND SYNCHRONOUS
COMMUNICATIONS SYSTEM WITH MENU
GENERATION**

FIELD OF THE INVENTION

This invention relates to an information management and synchronous communications system and method for generation of computerized menus for restaurants and other applications with specialized display and synchronous communications requirements related to, for example, the use of equipment or software with non-PC-standard graphical formats, display sizes and/or applications for use in remote data entry, information management and synchronous communication between host computer, digital input device or remote pager via standard hardwired connection, the internet, a wireless link, smart phone or the like.

BACKGROUND OF THE INVENTION

While computers have dramatically altered many aspects of modern life, pen and paper have prevailed in the hospitality industry, e.g., for restaurant ordering, reservations and wait-list management, because of their simplicity, ease of training and operational speed. For example, ordering prepared foods has historically been done verbally, either directly to a waiter or over the telephone, whereupon the placed order is recorded on paper by the recipient or instantly filled.

1 Although not previously adapted for wide-scale use in the hospitality industry,
2 various forms of digital wireless communication devices are in common use, e.g., digital
3 wireless messengers and pagers. Also in common use are portable laptop and handheld devices.
4 However, user-friendly information management and communication capability not requiring
5 extensive computer expertise has not heretofore been available for use in everyday life such as
6 for restaurant ordering, reservations and wait-list management. Hundreds of millions of dollars
7 have been spent on personal digital assistant ("PDA") development seeking to produce a small,
8 light-weight and inexpensive device that could be adapted to such uses; yet none have yielded a
9 satisfactory solution.

10 One of the inherent shortcomings of PDA type devices is that, as they strive for
11 small size, low weight and low cost, they must compromise the size and clarity of the operator
12 display medium interface itself, which in most cases is one of a variety of LCD (liquid crystal
13 display) type devices. As the size of the display shrinks, the amount of information that may be
14 displayed at any one point or time is commensurately decreased, typically requiring multiple
15 screens and displays to display information to the operator. This reduces the overall utility of the
16 device. Additionally, the smaller display and keyboard results in a non-optimal operator
17 interface, which slows down operation and is thus unacceptable for the time criticality of
18 ordering, reservation and wait-list management and other similar applications. This necessitates
19 many design compromises which in the aggregate have resulted in limited acceptance of PDA
20 type devices in the restaurant and hospitality fields.

21 Many of the negatives prevalent in earlier devices have been eliminated, but, to
22 date, there is still no integrated solution to the ordering/waitlist/reservation problem discussed
23 above. With the advent of the Palm® and other handheld wireless devices, however, the efforts

1 to make such devices ubiquitous have begun to bear fruit at least in some areas, e.g., personal
2 calendars. However, substantial use of such devices in the restaurant and hospitality context has
3 not occurred to date. As discussed above, at least one of the reasons PDAs have not been
4 quickly assimilated into the restaurant and hospitality industries is that their small display sizes
5 are not readily amenable to display of menus as they are commonly printed on paper or displayed
6 on, e.g., large, color desktop computer screens. Another reason is that software for fully
7 realizing the potential for wireless handheld computing devices has not previously been
8 available. Such features would include fast and automatic synchronization between a central
9 database and multiple handheld devices, synchronization and communication between a World
10 Wide Web ("Web") server and multiple handheld devices, a well-defined application program
11 interface ("API") that enables third parties such as point of sale ("POS") companies, affinity
12 program companies and internet content providers to fully integrate with computerized
13 hospitality applications, real-time communication over the internet with direct connections or
14 regular modem dialup connections and support for batch processing that can be done periodically
15 throughout the day to keep multiple sites in synch with the central database. A single point of
16 entry for all hospitality applications to communicate with one another wirelessly has also
17 previously been unavailable. Such a single point of entry would work to keep all wireless
18 handheld devices and linked Web sites in synch with the backoffice server (central database) so
19 that the different components are in equilibrium at any given time and an overall consistency is
20 achieved. For example, a reservation made online would be automatically communicated to the
21 backoffice server and then synchronized with all the wireless handheld devices wirelessly.
22 Similarly, changes made on any of the wireless handheld devices would be reflected
23 instantaneously on the backoffice server, Web pages and the other handheld devices.

1 For the foregoing reasons, paper-based ordering, waitlist and reservations
2 management have persisted in the face of widespread computerization in practically all areas of
3 commerce. At most, computerization of these functions has been largely limited to fixed
4 computer solutions, i.e., desktop or mainframe, because of the problems heretofore faced in
5 configuring wireless handheld devices and maintaining database synchronization for such
6 applications. Specifically, the unavailability of any simple technique for creating restaurant
7 menus and the like for use in a limited display area wireless handheld device or that is
8 compatible with ordering over the internet has prevented widespread adoption of
9 computerization in the hospitality industry. Without a viable solution for this problem,
10 organizations have not made the efforts or investments to establish automated interfaces to
11 handheld and Web site menus and ordering options.

12 A principal object of the present invention is to provide an improved information
13 management and synchronous communications system and method which facilitates user-
14 friendly and efficient generation of computerized menus for restaurants and other applications
15 that utilize equipment with non-PC-standard graphical formats, display sizes and/or applications.

16 A further object of the present invention is to provide an improved information
17 management and synchronous communications system and method which provides for entry,
18 management and communication of information from the operator as well as to and from another
19 computer, Web page menu, remote digital device using a standard hardwired connection, the
20 internet or a wireless link.

21 A further object of the present invention is to provide an improved information
22 management and synchronous communications system which is small, affordable and

1 lightweight yet incorporates a user-friendly operator interface and displays menus in a readily
2 comprehensible format.

3 A further object of the present invention is to provide a synchronous information
4 management and communications system which enables automatic updating of both wireless and
5 internet menu systems when a new menu item is added, modified or deleted from any element of
6 the system.

7 SUMMARY OF THE INVENTION

8 The foregoing and other objects of the present invention are provided by a
9 synchronous information management and communications system and method optimized for
10 simplicity of operation which incorporates menu generation for creation of menus to be used
11 with wireless remote handheld computer and PDA devices, the internet or any application where
12 simple and efficient generation of menus is appropriate. The menu generation approach of the
13 present invention includes a desktop software application that enables the rapid creation and
14 building of a menu and provides a means to instantly download the menu configuration onto,
15 e.g., a handheld device or Web page and to seamlessly interface with standard point of sale
16 ("POS") systems to enable automatic database updates and communication exchanges when a
17 change or input occurs in any of the other system elements. To solve the above and other related
18 problems, an information management and communications system is provided which results in
19 a dramatic reduction in the amount of time, and hence cost, to generate and maintain
20 computerized menus for, e.g., restaurants and other related applications that utilize non-PC-
21 standard graphical formats, display sizes or applications.

22 The menu generation approach of the present invention has many advantages over
23 previous approaches in solving the problem of converting paper-based menus or Windows® PC-

1 based menu screens to small PDA-sized displays and Web pages. In one embodiment, the
2 present invention is a software tool for building a menu, optimizing the process of how the menu
3 can be downloaded to either a handheld device or Web page, and making manual or automatic
4 modifications to the menu after initial creation.

5 The use of wireless handheld devices in the restaurant and hospitality industry is
6 becoming increasingly pervasive as restaurant owners and managers become more aware of the
7 benefits. With the proper wireless handheld system in place, restaurants can experience
8 increased table turns from improved server productivity and shorter order taking and check
9 paying times. Restaurants and POS companies seeking to provide a wireless handheld interface
10 to their desktop-based POS systems or a Web page equivalent face several challenges. These
11 challenges include building a menu using their existing database and transferring the menu onto
12 handheld devices or Web pages that will interface with servers wirelessly or to
13 restaurants/customers over the internet. The menu generation approach of the present invention
14 is the first coherent solution available to accomplish these objectives easily and allows one
15 development effort to produce both the handheld and Web page formats, link them with the
16 existing POS systems, and thus provides a way to turn a complicated, time-consuming task into a
17 simple process.

18 The information management and synchronous communications system of the
19 present invention features include fast synchronization between a central database and multiple
20 handheld devices, synchronization and communication between a Web server and multiple
21 handheld devices, a well-defined API that enables third parties such as POS companies, affinity
22 program companies and internet content providers to fully integrate with computerized
23 hospitality applications, real-time communication over the internet with direct connections or

1 regular modem dialup connections and support for batch processing that can be done periodically
2 throughout the day to keep multiple sites in synch with the central database.

3 The communication module also provides a single point of entry for all hospitality
4 applications, e.g., reservations, frequent customer ticketing, wait lists, etc. to communicate with
5 one another wirelessly and over the Web. This communication module is a layer that sits on top
6 of any communication protocol and acts as an interface between hospitality applications and the
7 communication protocol and can be easily updated to work with a new communication protocol
8 without modifying the core hospitality applications. A single point of entry works to keep all
9 wireless handheld devices and linked web sites in synch with the backoffice server applications
10 so that the different components are in equilibrium at any given time and an overall consistency
11 is achieved. For example, a reservation made online can be automatically communicated to the
12 backoffice server and then synchronized with all the wireless handheld devices wirelessly.
13 Similarly, changes made on any of the wireless handheld devices are reflected instantaneously on
14 the backoffice server Web pages and the other handheld devices.

15 **BRIEF DESCRIPTION OF THE DRAWINGS**

16 The foregoing features and advantages of the present invention can be appreciated
17 more fully from the following description, with references to the accompanying drawings in
18 which:

19 FIG. 1 is a schematic representation of a window displayed on a computer display
20 screen which shows a hierarchical tree menu, modifier window and sub-modifier window in
21 conformity with a preferred embodiment of the present invention.

22 FIG. 2 is a schematic representation of a modifier dialog box in conformity with a
23 preferred embodiment of the present invention.

1 ~~FIG. 3~~ is a schematic representation of a menu category dialog box in conformity
2 with a preferred embodiment of the present invention.

3 ~~FIG. 4~~ is a schematic representation of a menu item dialog box in conformity with
4 a preferred embodiment of the present invention.

5 ~~FIG. 5~~ is a schematic representation of a display customization dialog box in
6 conformity with a preferred embodiment of the present invention.

7 ~~FIG. 6~~ is a schematic representation of a communications control window in
8 conformity with a preferred embodiment of the present invention.

9 ~~FIG. 7~~ is a schematic representation of a point of sale interface on a wireless
10 handheld device for use in displaying page menus created in conformity with a preferred
11 embodiment of the present invention.

12 **DETAILED DESCRIPTION OF THE INVENTION**

13 Most personal computers today run under an operating system that provides a
14 graphical user interface ("GUI") for accessing user applications. A GUI is used in the preferred
15 embodiment of the present invention. Through an interface of windows, pull-down menus, and
16 toolbars, GUI operating systems have simplified PCs and have rendered computer technology
17 more user friendly by eliminating the need to memorize keyboard entry sequences. In addition,
18 GUIs allow users to manipulate their data as they would physical entities. For example, a
19 window can represent a file and the contents of the window can represent the records of the file.
20 The window can be opened, closed, or set aside on a desktop as if it were an actual object. The
21 records of the file can be created, deleted, modified and arranged in a drag-and-drop fashion as if
22 they also were physical objects. The most common GUI operating systems that provide this
23 "object-oriented" environment for personal computers are Microsoft Windows® systems,

1 including Windows CE® for handheld wireless devices and the like. Generally, a particular
2 application program presents information to a user through a window of a GUI by drawing
3 images, graphics or text within the window region. The user, in turn, communicates with the
4 application by "pointing" at graphical objects in the window with a pointer that is controlled by a
5 hand-operated pointing device, such as a mouse, or by pressing keys on a keyboard.

6 The use of menus is conventional in GUIs for software applications. Menus are
7 typically utilized to provide end users of applications with available choices or processing
8 options while using the applications. For example, in a typical desktop or interactive application,
9 selection of a "file" from a menu bar may cause display of a context menu which provides "file"
10 options. File options can have additional subordinate or child options associated with them. If a
11 file option having subordinate options is selected, the child options are displayed in context in a
12 child menu or submenu proximate to the selected parent option. One or more of the child
13 options provided in the child menu may have further subordinate options. Thus, such a menu
14 system comprises cascading sets of menus which are displayable in context to show the
15 parent/child relationships between options of the context menu. A menu system of this type is
16 incorporated into the preferred embodiment of the invention.

17 The preferred embodiment of the present invention uses typical hardware
18 elements in the form of a computer workstation, operating system and application software
19 elements which configure the hardware elements for operation in accordance with the present
20 invention. A typical workstation platform includes hardware such as a central processing unit
21 ("CPU"), e.g., a Pentium® microprocessor, RAM, ROM, hard drive storage in which are stored
22 various system and application programs and data used within the workstation, modem, display
23 screen, keyboard, mouse and optional removable storage devices such as floppy drive or a CD

1 ROM drive. The workstation hardware is configured by software including an operating system,
2 e.g., Windows® 95, 98, NT or CE, networking software (including internet browsing software)
3 and application software components. The preferred embodiment also encompasses a typical file
4 server platform including hardware such as a CPU, e.g., Pentium® microprocessor, RAM, ROM,
5 hard drive, modem, and optional removable storage devices, e.g., floppy or CD ROM drive. The
6 server hardware is configured by software including an operating system, e.g., Windows® 95, 98,
7 NT or CE, networking software (including Web server software) and database software.

8 A computer workstation for use in the preferred embodiment also includes a GUI.

9 As is conventional, the GUI is configured to present a graphical display on the display screen
10 arranged to resemble a single desktop. Execution of an application program involves one or
11 more user interface objects represented by windows and icons. Typically, there may be several
12 windows and icons simultaneously present on the desktop and displaying information that is
13 generated by different applications.

14 The window environment is generally part of the operating system software that
15 includes a collection of utility programs for controlling the operation of the computer system.
16 The computer system, in turn, interacts with application programs to provide higher level
17 functionality, including a direct interface with the user. Specifically, the application programs
18 make use of operating system functions by issuing task commands to the operating system which
19 then performs the requested task. For example, an application program may request that the
20 operating system display certain information on a window for presentation to the user.

21 An aspect of the preferred embodiment of the information management and
22 communications system of the invention is shown in FIG. 1. FIG. 1 shows an example of the
23 GUI provided by the operating system of the preferred embodiment of the present invention.

1 With reference to FIG. 1, the preferred embodiment includes an intuitive GUI 1 from which to
2 build a menu on a desktop or other computer. A hierarchical tree structure 2 is used to show the
3 different relationships between the menu categories 3 (e.g., soups, salads, appetizers, entrees,
4 deserts, etc.), menu items 4 (e.g., green salad, chicken caesar salad, etc.), menu modifiers 5 (e.g.,
5 dressing, meat temperature, condiments, etc.) and menu sub-modifiers 6 (e.g., Italian, French,
6 ranch, bleu cheese, etc.).

7 The procedure followed in configuring a menu on the desktop PC and then
8 downloading the menu configuration onto the POS interface on the handheld device in
9 conformance with the preferred embodiment is as follows.

10 The menu configuration application is launched by clicking on the appropriate
11 icon on the desktop display screen. FIG. 1 will then be displayed. There are three windows on
12 the screen shown in FIG. 1. The left window is the menu tree 7, also called the tree view. The
13 top right window is the Modifiers window 8 and the bottom right window is the Sub-Modifiers
14 window 9. The Sub-Modifiers window lists the sub-modifiers that correspond to the modifier
15 that is selected. The views on the right are referred to as list views. There are several ways of
16 invoking a command, including using the menu options; using the context menu (right mouse
17 click); using the keyboard or using the toolbar icons. For example, if it is desired to add a
18 category to the menu, the following four options are available: (1) clicking on Edit, Add
19 Category; (2) right mouse clicking on Menu, then clicking on Add Category; (3) highlighting
20 Menu, then typing Ctrl + T or (4) clicking on the Add Category icon on the toolbar. To add an
21 item to a category, the following options are available: (1) highlighting the category to which it
22 is desired to add an item and then clicking on Edit > Add Item; (2) right mouse clicking on the

1 desired category and then clicking on Add Item; (3) highlighting the desired category, then
2 typing Ctrl + N or (4) clicking on the Add icon on the toolbar.

3 When building a menu, it should be kept in mind that the menu items are stored
4 using a tree metaphor similar to how files are stored on a PC with folders and subfolders. The
5 menu structure is similar to the Windows® File Explorer in the way the items are organized
6 hierarchically. Below is an example of how an item may be configured:

7 Menu
8 >> Entrees
9 >> Red Meat
10 >> NY Strip
11 >> Vegetables
12 >> Tomato
13 >> Lettuce
14 Meat Temperature
15 >> Medium Rare

16 In the above example, Menu is the root. Entrees is a menu category. Red Meat is an Entree
17 category. NY Strip is a modifier. Vegetable is a modifier. Meat Temperature is a modifier.
18 Medium Rare is a sub-modifier of Meat Temperature.

19 The steps taken in building a menu are as follows:

- 20 1. Add Modifiers;
- 21 2. Add Sub-Modifiers and link them to the Modifiers;
- 22 3. Create Menu categories;
- 23 4. Add menu items to the categories;
- 24 5. Assign Modifiers to the menu items;
- 25 6. Preview the menu on the POS emulator on the desktop PC;
- 26 7. Download the menu database to the handheld device.

27 To add modifiers, a user clicks on the inside of the Modifiers window, then (1)
28 clicks on Edit>Add Modifier; (2) Presses Ctrl + N; (3) right mouse clicks in the Modifiers
29 window, then clicks on Add Modifiers or (4) clicks on the Add icon from the toolbar. If a menu

1 is being built from scratch, the procedure is to enter the Long Name, Short Name, Code and
2 Price in the Modifier dialog box 10 shown in FIG. 2. The Long Name is the full descriptive
3 name of the item. The Short Name is the abbreviated name that will be displayed on the
4 handheld device. The Code is the numeric or alphanumeric code for the item. If there is an
5 existing database, the existing database can be browsed and menu items retrieved from the
6 database. Clicking on the Browse button will bring up the existing database of menu items. The
7 item to be added is then selected and "OK" is clicked. The fields will then be filled with the
8 information from the database. Clicking on OK again will add the item as a modifier. To delete
9 a modifier, the modifier is selected and the Delete key pressed on the keyboard. To edit a
10 modifier, either the modifier is double clicked or the Enter key is pressed.

11 Sub-modifiers represent the last level of modifiers that can be assigned to a menu
12 tree. To add sub-modifiers, the modifier to which sub-modifiers are to be assigned is selected.
13 Then, the focus is set on the sub-modifier window by clicking inside the Sub-Modifier window
14 as follows: (1) clicking on Edit>Add Sub-Modifier; (2) pressing Ctrl + N; (3) right mouse
15 clicking in the Sub-Modifiers window, then clicking on Add Sub-Modifiers or (4) clicking on the
16 Add icon from the toolbar. If a menu is being built from scratch, the procedure is to enter the
17 Long Name, Short Name, Code and Price in a Sub-Modifier dialog box similar to the Modifier
18 dialog box shown in FIG. 2. As with modifiers, the Long Name is the full descriptive name of
19 the item. The Short Name is the abbreviated name that will be displayed on the handheld device.
20 The Code is the numeric or alphanumeric code for the item. As before, if there is an existing
21 database, the existing database can be browsed and menu items retrieved from the database.
22 Clicking on the Browse button will bring up the existing database of menu items. The item to be
23 added is then selected and OK clicked. The fields will then be filled with the information from

1 the database. Clicking on OK again will add the item as a sub-modifier. To delete a sub-
2 modifier, the sub-modifier is selected and the Delete key depressed on the keyboard. To edit a
3 sub-modifier, either the sub-modifier is double clicked or the Enter key is pressed.

4 Menu categories are created from the root. Some examples of categories are
5 Appetizers, Soups, Salads, Entrees, Desserts, etc. The first step is to click on Menu in the menu
6 tree window. Categories are added by (1) clicking on the Add Category icon from the toolbar;
7 (2) clicking on Edit > Add Category or (3) pressing Ctrl + T. As shown in FIG. 3, Menu
8 Category dialog box 11 then appears in which to enter the Long and Short names for the menu
9 category.

10 To add menu items to categories, the menu category which is being built is
11 clicked. For example, if items are being added to Appetizers, the Appetizers branch is clicked
12 on. Then the Edit > Add Item is clicked on or Ctrl + N pressed. As before, if a menu is being
13 built from scratch, the procedure is to enter the Long Name, Short Name, Code, Prep Time,
14 Recipe and Price into the Menu Item dialog box 12 shown in FIG. 4. The Long Name is the full
15 descriptive name of the item. The Short Name is the abbreviated name that will be displayed on
16 the handheld device. The Code is the numeric or alphanumeric code for the item. Prep Time is
17 the time it takes to prepare the meal and Recipe would include preparation methods and
18 ingredients that are used in the preparation of the item. If there is an existing database, the
19 existing database can be browsed and menu items retrieved from the database. Clicking on the
20 Browse button will bring up the existing database of menu items. The item to be added is then
21 selected and OK is clicked. The fields will then be filled with the information from the database.
22 Clicking on OK again will add the item to the category.

1 Once the menu items have been entered, it may be desired to assign some
2 modifiers to the menu items. For example, it may be desired to assign meat temperature to a
3 steak order. To accomplish this, first the modifier to be assigned is selected, then the menu item
4 on the tree view that is to be assigned the modifier is clicked on and then Edit > Assign Modifier
5 is clicked on. Or, the modifier can simply be dragged and dropped onto the menu item to link
6 them. A dialog box is then displayed asking if this modifier is a required modifier. If it is a
7 required modifier, the display icon will be red but if it is a non-required modifier the display icon
8 will be green. As many modifiers as are applicable can be assigned. If any changes are made to
9 the modifiers, those changes will be automatically reflected throughout the menu tree.

10 Once the modifiers have been entered, it may be desired to assign sub-modifiers
11 to the modifiers items. For example, it may be desired to add Honey Mustard as a sub-modifier
12 to Dressing. To accomplish this, first the modifier to be assigned a sub-modifier is selected, then
13 the sub-modifier window is clicked on, then Edit > Add Sub Modifier is clicked on, Ctrl+N
14 entered or the Add icon from the toolbar is clicked on. Or, the sub-modifier can simply be
15 dragged and dropped onto the modifier to link them.

16 When the menu has been completely configured, it can be previewed on a POS
17 emulator on the desktop to verify that the menu is correctly configured before downloading it to
18 the handheld device. To preview, File > Preview Database is clicked on or the Preview Database
19 icon from the toolbar is clicked on. The handheld POS emulator on the desktop can then be run.
20 If the configuration is deemed acceptable, the handheld device is connected to the desktop PC to
21 ensure that a connection has been established; the POS application on the handheld device is
22 exited and File > Download Database is clicked on or the Download Database icon from the
23 toolbar is clicked on. If there is an existing menu database on the handheld device, the system

1 will ask if the existing database should be replaced. Yes is clicked if existing database
2 replacement is desired.

3 A database function enables the creation of, e.g., a breakfast menu, lunch menu
4 and dinner menu and downloading them to a handheld device. Functions available are (1)
5 creating a new database; (2) opening an existing database; (3) saving a database under a different
6 name. To access these functions, File is clicked on the menu bar.

7 The preferred embodiment encompasses customized layout, views and fonts. To
8 set the focus on the view it is desired to change, click inside the desired window. The main
9 customizing dialog box is accessed by clicking on View > Customize View. A dialog box 13, as
10 shown in FIG. 5, will be displayed including tabs that allow the following options: selection of
11 Columns to display in the list view by choosing and arranging the fields to display in the
12 Modifiers and Sub-Modifiers windows; formatting Columns by specifying the column widths
13 and justification; selecting Filter allows restricting the list to display only the items that meet
14 certain criteria. For example, display of modifiers with codes between 500 and 550. Selecting
15 Sort allows sorting the modifiers or sub-modifiers according to any of the available fields such as
16 Name, Code or Price. Selecting Style facilitates choice of font type, style, size, etc. To change
17 the font in a particular window, click on View > Fonts or right mouse click in the desired
18 window and then click on Fonts. To change the size of the windows, drag the borders of the
19 windows to expand or contract the size of the windows. To change the column widths, simply
20 drag the edge of the column headers to increase or decrease the column widths.

21 A communications control program monitors and routes all communications to
22 the appropriate devices. It continuously monitors the wireless network access point and all other
23 devices connected to the network such as pagers, remote devices, internet Web links and POS

software. Any message received is decoded by the software, and then routed to the appropriate device. No user action is needed during operation of the software once the application has been launched. To launch the communications control module, a Wireless Traffic icon is clicked on the desktop PC. When the program loads, the screen shown in FIG. 6 appears. Messages received are logged in the window 14 shown in FIG. 6 with a time stamp. The messages are also logged to a file on the hard drive. This provides a mechanism to monitor all traffic across the network (possibly useful for troubleshooting, or maintenance, but not necessary for normal operation). The program may be minimized so the screen is not displayed on the desktop, but it must be running for proper communications to exist between all devices on the network.

As stated, the preferred embodiment of the present invention includes the use of and compatibility with GUI technology. A drag-and-drop approach is used for organizing the tree structure 2 in the generated menu. Drag-and-drop is also used for assigning modifiers (modifiers can be dragged from the modifiers window 5 and dropped onto the menu item 4 for assignment). In-cell editing results in fast editing of items in building the menus. Customizable fonts enable users to change font types, style and size. Customizable layouts enable users to resize windows, change icons and display preferences. The inventive approach provides for fully persistent storage between sessions, even if a session is improperly or abruptly terminated. Font and the tree state (i.e., which nodes are expanded/collapsed) are stored between sessions. Layout for modifiers and sub-modifiers list views (filter, columns, formatting, font, etc.) are stored between sessions. The last database used is likewise stored between sessions. Splitter views allow the user to see different views at the same time. Each view is displayed on its own section of the screen. Views can be resized via the keyboard or a mouse by simply dragging the splitter in the middle.

1 An automated function is provided to import existing POS databases into the
2 inventive menu generation system and, as discussed above with respect to the detailed example
3 of how to use the preferred embodiment, an automated download procedure is provided to
4 transfer the desktop database onto a handheld device and/or Web page. Also as discussed, the
5 preferred embodiment facilitates preview of the handheld device or Web page version of the
6 POS menu on the desktop before downloading and configuration. Customizable desktop menu
7 generation is contemplated, as discussed above, in the form of customizable fonts, columns,
8 layouts, etc. The inventive approach also includes templates for common modifiers that can be
9 assigned to similar menu items. The preferred embodiment also supports multiple databases,
10 thus providing for the creation and storing of different menu databases on handheld devices such
11 as breakfast, lunch or dinner menus. The user can then select the appropriate database to reflect
12 the time of day.

13 FIG. 7 is a schematic representation of a point of sale interface 15 for use in
14 displaying a page-type menu 16 created using the inventive menu generation approach. As can
15 be seen from FIG. 7, the page menu is displayed in a catalogue-like point-and-click format
16 whereas the master menu, FIG. 1, is displayed as a hierarchical tree structure. Thus, a person
17 with little expertise can "page through" to complete a transaction with the POS interface and
18 avoid having to review the entire menu of FIG. 1 to place an order. A PDA or Web page format
19 could appear like FIG. 7 or the display could be configured for particular requirements since
20 fully customizable menu generation and display are contemplated.

21 The POS interface on the handheld device supports pricing in the database or
22 querying prices from the POS server. The POS device also can be customized with respect to
23 "look and feel" for the particular version. As can be seen in FIG. 7, the POS interface provides

1 for billing, status and payment with respect to orders. A myriad of options can be provided
2 depending on the application.

3 Advanced database functions are provided in the preferred embodiment of the
4 invention, including an automated download process onto handheld devices and/or Web sites. In
5 the preferred embodiment, the menu generation system of the present invention uses an API
6 called ActiveX Data Objects ("ADO") for database access. ADO is useful in a variety of
7 settings. It is built on top of OLE DB and can be used to talk to databases and, in the future, any
8 data source with any OLE DB driver. Advanced querying is supported. The database can be
9 queried on virtually all fields. Queries can be built using SQL syntax for experienced users or
10 can be created using a query builder which guides users through the creating process. Advanced
11 error handling is supported. Errors occurring at run time can be trapped. A descriptive message
12 is displayed to alert the user and provide error information. However, the application does not
13 terminate when the errors happen. The source code is easy to maintain and modify, thus
14 allowing for on time delivery of customized versions of the software. The advanced database
15 functions produce well-designed databases that accommodate growth and scalability

16 The inventive menu generation approach provides a solution for the pervasive
17 connectivity and computerization needs of the restaurant and related markets. The inventive
18 solution includes automatic database management and synchronization, PDA and handheld
19 wireless operating system integration and optimization, wireless communications and internet
20 connectivity, user interface design, and graphics design.

21 In the preferred embodiment, the menu generation approach of the present
22 invention uses Windows CE® as the operating system for the handheld devices. Windows CE®
23 provides the benefits of a familiar Windows 95/98/NT® look and feel, built-in synchronization

1 between handheld devices, internet and desktop infrastructure, compatibility with Microsoft
2 Exchange®, Microsoft Office 9® and TCP/IP quick access to information with instant-on feature.

3 Windows CE® provides a basic set of database and communication tools for
4 developer use. However, interfacing with these tools to provide application specific results can
5 be a complex task. In addition to the menu generation described above, a set of software
6 libraries described herein in conformance with the present invention not only enhances the basic
7 Windows CE® functionality by adding new features but also maximizes the full potential of
8 wireless handheld computing devices. Such features include fast synchronization between a
9 central database and multiple handheld devices, synchronization and communication between a
10 Web server and multiple handheld devices, a well-defined API that enables third parties such as
11 POS companies, affinity program companies and internet content providers to fully integrate
12 with computerized hospitality applications, real-time communication over the internet with direct
13 connections or regular modem dialup connections and support for batch processing that can be
14 done periodically throughout the day to keep multiple sites in synch with the central database.

15 The synchronous communications control module discussed above provides a
16 single point of entry for all hospitality applications to communicate with one another wirelessly
17 or over the Web. This communications module is a layer that sits on top of any communication
18 protocol and acts as an interface between hospitality applications and the communication
19 protocol. This layer can be easily updated to work with a new communication protocol without
20 having to modify the core hospitality applications. The single point of entry works to keep all
21 wireless handheld devices and linked Web sites in synch with the backoffice server (central
22 database) so that the different components are in equilibrium at any given time and an overall
23 consistency is achieved. For example, a reservation made online is automatically communicated

1 to the backoffice server which then synchronizes with all the wireless handheld devices
2 wirelessly. Similarly, changes made on any of the wireless handheld devices will be reflected
3 instantaneously on the backoffice server and the other handheld devices.

4 The software applications for performing the functions falling within the
5 described invention can be written in any commonly used computer language. The discrete
6 programming steps are commonly known and thus programming details are not necessary to a
7 full description of the invention.

8 A simple point-to-point wireless capability is contemplated which permits simple
9 digital messages to be sent from the wireless handheld devices to a receiver in a beeper and/or
10 valet parking base-station. The POS interface of FIG. 7 is representative of the display on a
11 typical wireless device used in conformity with the invention. A simple protocol is used to
12 acknowledge receipt of the message and thus simultaneous communication is not necessary,
13 which reduces the cost of the wireless link. The range of the wireless link is determined by the
14 characteristics of the radio transceiver. Adding a wireless link allows paging of beeper equipped
15 customers directly from the operator interface on the wireless handheld devices and
16 communication to and from various input/output transmitters and receivers to update the status
17 of the order, reservation or other information and thus further reduce the workload on the
18 operator and enable operations to proceed much faster. This link could also be hardwired or
19 otherwise implemented using any two-way messaging transport.

20 A further aspect of the invention is the use of the menus generated in accordance
21 with the described technique to place orders from wireless remote handheld devices or from
22 remote locations through the internet. The World Wide Web is a distributed hypermedia
23 computer system that uses the internet to facilitate global hypermedia communication using

1 specified protocols. One such protocol is the Hypertext Transfer Protocol ("HTTP"), which
2 facilitates communication of hypertext. Hypertext is the combination of information and links to
3 other information. In the context of the Web, hypertext is defined by the Hypertext Mark-up
4 Language ("HTML"). The links or hyperlinks in a HTML document reference the locations of
5 resources on the Web, such as other HTML documents. Another language used in creating
6 documents for use on the Worldwide Web, to display on computer screens, or to create speech
7 style sheets for use in, e.g., telephones, is the Extensible Mark-Up Language ("XML"). XML is
8 a "metalanguage", i.e., a language for describing languages which was developed to eliminate
9 the restrictions of HTML.

10 The Web is a client-server system. The HTML documents are stored on Web
11 server computers, typically in a hierarchical fashion with the root document being referred to as
12 the home page. The client specifies a HTML document or other source on the server by
13 transmitting a Uniform Resource Locator ("URL") which specifies the protocol to use, e.g.,
14 HTTP, the path to the server directory in which the resource is located, and filename of the
15 resource. Users retrieve the documents via client computers. The software running on the user's
16 client computer that enables the user to view HTML documents on the computer's video monitor
17 and enter selections using the computer's keyboard and mouse is known as a browser. The
18 browser typically includes a window in which the user may type a URL. A user may cause a
19 URL to be transmitted by typing it in the designated window on the browser or by maneuvering
20 the cursor to a position on the displayed document that corresponds to a hyperlink to a resource
21 and actuating the mouse button. The latter method is commonly referred to simply as "clicking
22 on the hot-spot" or "clicking on the hyperlink". The hyperlink methodology is contemplated for
23 use in accordance with the preferred embodiment to transmit orders via the internet.

1 Web server application software exists that enables a user to shop for and order
2 merchandise. Such systems are sometimes referred to as electronic merchandising systems or
3 virtual storefronts. Systems that enable a user to choose among several retailers' goods are
4 sometimes referred to as electronic malls. An electronic retailer's or electronic mall operator's
5 Web server provides HTML forms that include images and descriptions of merchandise. The
6 user may conventionally search for an item by entering a key word search query in a box on a
7 form. When a user selects an item, the server may provide a linked form that describes that item
8 in further detail. The user may also conventionally enter ordering information into boxes on the
9 form, such as the type and quantity of the item desired. The information entered by the user is
10 transmitted to the server. The user may select multiple items in this manner and then enter a
11 credit card number to pay for the purchases. The retailer processes the transaction and ships the
12 order to the customer. As can be appreciated, ordering merchandise can also be done from
13 menus. The generation of menus of items or merchandise for sale over the internet is readily
14 accomplished by the menu generation approach of the present invention.

15 Searching for items that the user is interested in purchasing is insufficient in prior
16 merchandising systems. Database management programs use index searching to facilitate rapid
17 searching of large amounts of data. The creator of the database may instruct the program to use
18 specified fields in the database as indexed or key fields. The program locates all terms in the
19 database that appear in the indexed fields and stores them in an index table. Each entry in the
20 index table includes a term and corresponding pointer to the location in the database where the
21 term is found. If a user initiates a search for a term that is present in the index table, the program
22 can locate the instances of that term in the database with exceptional speed. Users who are
23 familiar with the particular database they are searching will generally know which fields are

1 indexed and will know the format of the data in those fields. For example, a user of a database
2 containing the inventory of a bookstore may know that users can search for the names of authors
3 of books and that a user who wishes to do so should enter the author's last name first. A user
4 having such knowledge will therefore be able to search efficiently. Users of electronic
5 merchandising systems, however, are generally end-consumers who have no knowledge of a
6 merchant's database. If, as is very likely, such a user initiates a search for a term that is not
7 present in the index table, the program must sequentially search through all records in the
8 database. Sequential records are typically linked by pointers. Using pointers in this manner is
9 very demanding on server resources, resulting not only in an exceptionally slow search, but also
10 creating a bottleneck for other processes that the server may be executing. The menu generation
11 approach of the present invention can be used to create customized menus from a database that
12 includes every item of merchandise the vendor has for sale. In this manner, customers can scan
13 the generated menu much more readily than they could view the entire database and the
14 necessity of having familiarity with the database is eliminated as well, reducing the need for
15 resource intensive pointers.

16 While the preferred embodiment of the invention is for the generation of
17 restaurant menus and the like, the broad scope of the invention is far greater. For example,
18 menus generated in accordance with the invention can be used in the desktop computing
19 environment in association with the operating system or application programs. One such use is
20 to facilitate the creation of user personalized file structures for general desktop use. Another use
21 is to facilitate the location of customized menus from master menus for use in association with
22 application software to make the execution of the application software more efficient by, e.g.,
23 eliminating the necessity of querying or checking every tree branch in the master menu file

1 structure in response to user input or other criteria and to create handheld/PDA compatible
2 versions of the software.

3 While the preferred embodiment of the invention includes the selection of items
4 from a master menu wherein the master menu is displayed using a graphical user interface, it is
5 to be appreciated that any means for displaying the master menu to the user and generating
6 another menu in response to and comprised of the selections made is encompassed by the
7 contemplated invention. The invention encompasses the selection of nontextual symbols,
8 characters, icons and the like, in addition to text, from a hierarchical tree menu or the like for
9 generation of another menu comprised of such items.

10 It is also within the scope of the invention to generate menus automatically in
11 response to predetermined criteria. For example, in the restaurant menu generation embodiment,
12 a modified menu can be generated to comply with a particular specification or group of criteria
13 such as, e.g., "dinner", "low cholesterol", "low fat", "fish", "chicken", or "vegetarian". In this
14 embodiment, only items from the master menu that satisfy specified parameters will be included
15 in the generated menu. The selection process could involve selection of master menu items
16 based on tags or identifiers associated with the items or by checking every master menu item
17 against a dictionary of items acceptable for inclusion in the modified menu. It should also be
18 appreciated that the invention encompasses any combination of automatic and manual user
19 selection of the items comprising the generated menu. For example, a user might specify criteria
20 which would further control automatic selection or the user could manually select some items
21 with automatic selection of others. The menu generation aspect of the invention is equally
22 applicable to table-based, drive-thru, internet, telephone, wireless or other modes of customer
23 order entry, as is the synchronous communications aspect of the invention.

1 The inventive concept encompasses the generation of a menu in any context
2 known to those skilled in the art where an objective is to facilitate display of the menu so as to
3 enable selection of items from that menu. The restaurant menu generation embodiment is but
4 one example of a use for the inventive concept. Likewise, displaying menus generated in
5 accordance with the invention on PDAs and Web pages to facilitate remote ordering are but a
6 few examples of ways in which such a menu might be used in practice. Any display and
7 transmission means known to those skilled in the art is equally usable with respect to menus
8 generated in accordance with the claimed invention.

9 In the more general situation, menus can be generated in accordance with the
10 present invention in a variety of situations. For example, the usable file structure for a particular
11 data processing application can be dictated by the user or an application program prior to or
12 during the execution of the application program. Efficiencies with respect to computational
13 speed and equipment, e.g., storage and processor, usage can thus be achieved along with the
14 facilitation of display of the generated menu.

15 While the best mode for carrying out the preferred embodiment of the invention
16 has been illustrated and described in detail, those familiar with the art to which the invention
17 relates will recognize various alternative designs and embodiments which fall within the spirit of
18 practicing the invention. The appended claims are intended to cover all those changes and
19 modifications falling within the true spirit and scope of the present invention.

1 That which is claimed is:

2
3 1. An information management and synchronous communications system for
4 generating menus comprising:

- 5 a. a central processing unit,
6 b. a data storage device connected to said central
7 processing unit,
8 c. an operating system including a graphical user
9 interface,
10 d. a first menu stored on said data storage device,
11 e. application software for generating a second menu from
12 said first menu,

13 wherein the application software facilitates the generation of the second menu by allowing
14 selection of items from the first menu, addition of items to the second menu and assignment of
15 parameters to items in the second menu using the graphical user interface of said operating
16 system.

17 2. An information management and synchronous communications system in
18 accordance with claim 1, wherein the second menu is a restaurant menu.

19 3. An information management and synchronous communications system in
20 accordance with claim 1, wherein the second menu is capable of being displayed on the display
21 screen of a wireless computing device.

22 4. An information management and synchronous communications system in
23 accordance with claim 3, wherein selections from the second menu are capable of being
transmitted to a receiving computer by wireless link.

1 5. An information management and synchronous communications system in
2 accordance with claim 1, wherein the second menu is capable of being displayed on display
3 screens of computers in a network.

4 6. An information management and synchronous communications system in
5 accordance with claim 5, wherein the computer network is the internet.

6 7. An information management and synchronous communications system in
7 accordance with claim 3, wherein selections from the second menu are capable of being
8 transmitted to a receiving computer via the internet.

9 8. An information management and synchronous communications system in
10 accordance with claim 1, wherein the second menu is created in conformity with hypertext
11 markup language or extensible markup language. B

12 9. An information management and synchronous communications system in
13 accordance with claim 1, wherein the second menu overwrites the first menu.

14 10. The information management and synchronous communications system of
15 claim 1, wherein the first menu and the second menu are both capable of being displayed in the
16 same window on the display screen.

17 11. The information management and synchronous communications system of
18 claim 1, wherein the items comprising the second menu are a subset of the items comprising the
19 first menu.

20 12. An information management and synchronous communications system for
21 generating menus comprising:

- 22 a. a microprocessor,
23 b. a display device,
24 c. a data and instruction input device,

- 1 d. a data storage device for storing information and
2 instructions entered through said data and
3 instruction input means of information generated by
4 said microprocessor,
5 e. an operating system,
6 f. a master menu stored on said data storage device for
7 generating a modified menu, and
8 g. application software,

9 wherein said microprocessor, operating system and application software are operative to display
10 the master menu on the display device in response to instructions programmed into said
11 microprocessor, operating system, application software and information and instructions entered
12 through said data input device, and wherein said microprocessor, operating system and
13 application software are operative to create the modified menu from said master menu in
14 response to information and instructions entered through said data and instruction input device.

15 13. The information management and synchronous communications system of
16 claim 12, further comprising means for transferring the modified menu to a digital computing
17 device.

18 14. The information management and synchronous communications system of
19 claim 13, wherein the digital computing device is a wireless handheld device.

20 15. The information management and synchronous communications system of
21 claim 12, further comprising means for downloading the modified menu to the internet or a Web
22 page.

23 16. The information management and synchronous communications system of
24 claim 15, further comprising means for converting the modified menu to hypertext markup
25 language or extensible markup language.

1 17. The information management and synchronous communications system of
2 claim 15, wherein the items comprising the modified menu are a subset of the items comprising
3 the master menu.

4 18. An information management and synchronous communications system in
5 accordance with claim 12, wherein said operating system includes a graphical user interface and
6 wherein said microprocessor, operating system and application software are operative to generate
7 the modified menu by facilitating selection of items from said master menu using the graphical
8 user interface of said operating system. B

9 19. An information management and synchronous communications system in
10 accordance with claim 12, wherein said master menu is organized in a hierarchical tree structure
11 having branches comprising menu items and wherein the modified menu is at least partially
12 generated by selecting items from the branches of the tree structure.

13 20. An information management and synchronous communications system for
14 generating and transmitting menus comprising:

- 15 a. a central processing unit,
16 b. a data storage device connected to said central
17 processing unit,
18 c. an operating system including a graphical user
19 interface,
20 d. a first menu consisting of menu categories, said menu
21 categories consisting of menu items, said first menu
22 stored on said data storage device and displayable in a
23 window of said graphical user interface in a hierarchical
24 tree format,
25 e. a modifier menu stored on said data storage device and
26 displayable in a window of said graphical user
27 interface,

1 f. a sub-modifier menu stored on said data storage device
2 and displayable in a window of said graphical user
3 interface, and
4 g. application software for generating a second menu from
5 said first menu and transmitting said second menu to a
6 wireless handheld computing device or Web page,
7 wherein the application software facilitates the generation of the second menu by allowing
8 selection of categories and items from the first menu, addition of menu categories to the second
9 menu, addition of menu items to the second menu and assignment of parameters to items in the
10 second menu using the graphical user interface of said operating system, said parameters being
11 selected from the modifier and sub-modifier menus.

12 22. An information management and synchronous communications system in
13 accordance with claim ~~20~~¹, wherein the second menu is a restaurant menu.

14 32. An information management and synchronous communications system in
15 accordance with claim ~~20~~¹, wherein the second menu is capable of being displayed on the display
16 screen of a wireless computing device.

17 42. An information management and synchronous communications system in
18 accordance with claim ~~22~~³, wherein selections from the second menu are capable of being
19 transmitted to a receiving computer by wireless link.

20 62. An information management and synchronous communications system in
21 accordance with claim ~~20~~¹, wherein the second menu is capable of being displayed on display
22 screens of computers in a network.

23 72. An information management and synchronous communications system in
24 accordance with claim ~~24~~⁶, wherein the computer network is the internet.

1 ⁵20. An information management and synchronous communications system in
2 accordance with claim ³22, wherein selections from the second menu are capable of being
3 transmitted to a receiving computer via the internet.

4 ⁸27. An information management and synchronous communications system in
5 accordance with claim ¹20, wherein the second menu is created in conformity with hypertext
6 markup language or extensible markup language.

7 ⁹28. An information management and synchronous communications system in
8 accordance with claim ¹20, wherein the second menu overwrites the first menu.

9 ¹⁰29. The information management and synchronous communications system of
10 claim ¹20, wherein the first menu and the second menu are both capable of being displayed in the
11 same window on the display screen.

12 ¹¹30. The information management and synchronous communications system of
13 claim ¹20, wherein the menu categories and items comprising the second menu are subsets,
14 respectively, of the menu categories and items comprising the first menu.

15 31. In a computer system having an input device, a storage device, a video
16 display, an operating system including a graphical user interface and application software, an
17 information management and synchronous communications method comprising the steps of:

- 18 a. outputting at least one window on the video display;
19 b. outputting a first menu in a window on the video
20 display;
21 c. displaying a cursor on the video display;
22 d. selecting items from the first menu with the input
23 device or the graphical user interface;
24 e. inserting the items selected from the first menu into a
25 second menu, the second menu being output in a
26 window;

- 1 f. optionally adding additional items not included in the
2 first menu to the second menu using the input device or
3 the graphical user interface; and
4 g. storing the second menu on the storage device.
5 32. The method of claim 31, further comprising the step of transferring data or
6 instructions representative of the second menu to a remote digital device or Web page.
7 33. The method of claim 32, wherein said data or instructions representative
8 of the second menu are transferred by a wireless link.
9 34. The method of claim 31, wherein the selected items and optional
10 additional items are inserted into a second menu which is displayed in the same window as the
11 first menu. B
12 35. The method of claim 32, comprising the further steps of selecting at least
13 one item from the second menu and transmitting at least one item selected to another computer.
14 36. The method of claim 35, wherein at least one item selected from the
15 second menu is transmitted to another computer by wireless link or the internet.
16 37. The method of claim 32, wherein the second menu is displayed on the
17 remote digital device or Web page in page format.
18 38. The method of claim 31, wherein the second menu overwrites the first
19 menu.
20 39. The method of claim 31, wherein the items comprising the second menu
21 are a subset of the items comprising the first menu.
22 12/40. An information management and synchronous communications system for
23 use with wireless handheld computing devices and the internet comprising:
24 a. a central database containing hospitality applications and data,

- 1 b. at least one wireless handheld computing device on which hospitality
2 applications and data are stored,
3 c. at least one Web server on which hospitality applications and data are
4 stored,
5 d. at least one Web page on which hospitality applications and data are
6 stored,
7 e. an application program interface, and
8 f. a communications control module,

9 wherein applications and data are synchronized between the central data base, at least one
10 wireless handheld computing device, at least one Web server and at least one Web page; wherein
11 the application program interface enables intergration of outside applications with the hospitality
12 applications and wherein the communications control module is an interface between the
13 hospitality applications and any other communications protocol.

14 13/41. The information management and synchronous communications system of
15 claim 40 wherein the communications control module provides a single point of entry for all
16 hospitality applications and wherein the single point of entry allows the synchronization of at
17 least one wireless handheld computing device and at least one Web page with the central
18 database so that at least one handheld device, at least one Web page and central database are
19 consistent.

20 14/42. The information management and synchronous communications system of
21 claim 41 wherein information entered on at least one Web page and transmitted over the internet
22 is automatically communicated to the central database and at least one wireless handheld
23 computing device.

- 1 13 15
 43. The information management and synchronous communications system of
2 claim ~~41~~ wherein information entered on at least one wireless handheld computing device is
3 automatically communicated to the central database and at least one Web page.

add at >

09400413.092199
661260-ET-100460

ABSTRACT

An information management and synchronous communications system and method facilitates database equilibrium and synchronization with wired, wireless and Web-based systems, user-friendly and efficient generation of computerized menus and reservations for restaurants and other applications that utilize equipment with nonstandard graphical formats, display sizes and/or applications for use in remote data entry, information management and communication with host computer, digital input device or remote pager via standard hardwired connection, the internet, a wireless link or the like.

09400413-087400460

COMBINED DECLARATION AND POWER OF ATTORNEY FOR
ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL
DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART APPLICATION

As a below name 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:

INFORMATION MANAGEMENT AND SYNCHRONOUS COMMUNICATIONS SYSTEM WITH MENU GENERATION

the specification of which

a. ☒ is attached hereto

b. ☐ was filed on _____ as application Serial No. _____ and was amended on _____ (if applicable).

PCT FILED APPLICATION ENTERING NATIONAL STAGE

c. ☐ was described and claimed in International Application No. _____ filed on _____ and as amended on _____ (if any).

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 patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby specify the following as the correspondence address to which all communications about this application are to be directed:

SEND CORRESPONDENCE TO: MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, N.Y. 10154

DIRECT TELEPHONE CALLS TO: _____
(212) 758-4800

☐ I hereby claim foreign priority benefits under Title 35, United States Code § 119(a)-(d) or under § 365(b) of any foreign application(s) for patent or inventor's certificate or under § 365(a) of any PCT international application(s) designating at least one country other than the U.S. listed below and also have identified below such foreign application(s) for patent or inventor's certificate or such PCT international application(s) filed by me on the same subject matter having a filing date within twelve (12) months before that of the application on which priority is claimed:

☐ The attached 35 U.S.C. § 119 claim for priority for the application(s) listed below forms a part of this declaration.

<u>Country/PCT</u>	<u>Application Number</u>	<u>Date of filing (day, month, yr)</u>	<u>Date of Issue (day, month, yr)</u>	<u>Priority Claimed</u>
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

☐ I hereby claim the benefit under 35 U.S.C. § 119(e) of any U.S. provisional application(s) listed below.

Provisional Application No.

Date of Filing (day, month, yr)

**ADDITIONAL STATEMENTS FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART
OR PCT INTERNATIONAL APPLICATION(S) (DESIGNATING THE U.S.)**

I hereby claim the benefit under Title 35, United States Code § 120 of any United States application(s) or under § 365(c) of any PCT international application(s) designating the U.S. listed below.

<u>US/PCT Application Serial No.</u>	<u>Filing Date</u>	<u>Status (patented, pending, abandoned)/ U.S. application no. assigned (For PCT)</u>

☐ In this continuation-in-part application, insofar as the subject matter of any of the claims of this application is not disclosed in the above listed prior United States or PCT international application(s) 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(s) and the national or PCT international filing date of this application.

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.

I hereby appoint the following attorneys and/or agents with full power of substitution and revocation, to prosecute this application, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith: John A. Diaz (Reg. No. 19,550), John C. Vassil (Reg. No. 19,098), Alfred P. Ewert (Reg. No. 19,887),

David H. Pfeffer (Reg. No. 19,825), Harry C. Marcus (Reg. No. 22,390), Robert E. Paulson (Reg. No. 21,046), Stephen R. Smith (Reg. No. 22,615), Kurt E. Richter (Reg. No. 24,052), J. Robert Dailey (Reg. No. 27,434), Eugene Moroz (Reg. No. 25,237), John F. Sweeney (Reg. No. 27,471), Arnold I. Rady (Reg. No. 26,601), Christopher A. Hughes (Reg. No. 26,914), William S. Feiler (Reg. No. 26,728), Joseph A. Calvaruso (Reg. No. 28,287), James W. Gould (Reg. No. 28,859), Richard C. Komson (Reg. No. 27,913), Israel Blum (Reg. No. 26,710), Bartholomew Verdirame (Reg. No. 28,483), Maria C.H. Lin (reg. No. 29,323), Joseph A. DeGirolamo (Reg. No. 28,595), Michael P. Dougherty (Reg. No. 32,730), Seth J. Atlas (Reg. No. 32,454), Andrew M. Riddles (Reg. No. 31,657), Bruce D. DeRenzi (Reg. No. 33,676), Michael M. Murray (Reg. No. 32,537), Mark J. Abate (Reg. No. 32,527), Alfred L. Haffner, Jr. (Reg. No. 18,919), Harold Haidt (Reg. No. 17,509), John T. Gallagher (Reg. No. 35,516), Steven F. Meyer (Reg. No. 35,613) and Kenneth H. Sonnenfeld (Reg. No. 33,285) of Morgan & Finnegan, L.L.P. whose address is: 345 Park Avenue, New York, New York, 10154; and Edward A. Pennington (Reg. No. 32,588), Michael S. Marcus (Reg. No. 31,727) and John E. Hoel (Reg. No. 26,279) of Morgan & Finnegan, L.L.P., whose address is 1775 Eye Street, Suite 400, Washington, D.C. 20006.

[] I hereby authorize the U.S. attorneys and/or agents named hereinabove to accept and follow instructions from _____ as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. attorneys and/or agents and me. In the event of a change in the person(s) from whom instructions may be taken I will so notify the U.S. attorneys and/or agents hereinabove.

Full name of sole or first inventor Keith R. McNally

Inventor's signature* _____ date _____

Residence 21567 Parvin Drive, Santa Clarita, CA 91350

Citizenship USA

Post Office Address _____

Full name of second joint inventor, if any William H. Roof

Inventor's signature* _____ date _____

Residence 13429 Luckett Court, San Diego, CA 92130

Citizenship USA

Post Office Address _____

Full name of third joint inventor, if any Richard Bergfeld

Inventor's signature* _____ date _____

Residence 20719 Nashville Court, Chatsworth, CA 91311

Citizenship USA

Post Office Address _____

[] ATTACHED IS/ARE ADDED PAGE(S) TO COMBINED DECLARATION AND POWER OF ATTORNEY FORM FOR SIGNATURE BY FOURTH AND SUBSEQUENT INVENTORS

* Before signing this declaration, each person signing must:

1. Review the declaration and verify the correctness of all information therein; and
2. Review the specification and the claims, including any amendments made to the claims.

After the declaration is signed, the specification and claims are not to be altered.

To the inventor(s):

The following are cited in or pertinent to the declaration attached to the accompanying application:

Title 37, Code of Federal Regulation, § 1.56

Duty to disclose information material to patentability.

(a) A patent by its very nature is affect with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

Title 35, U.S. Code § 101

Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Title 35 U.S. Code § 102

Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent,
- (b) the invention was patented or described in a printed publication in this or foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States, or
- (c) he has abandoned the invention, or
- (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or
- (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(c) of this title before the invention thereof by the applicant for patent, or
- (f) he did not himself invent the subject matter sought to be patented, or
- (g) before the applicant's invention thereof the invention was made in this country by another had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other ...

Title 35, U.S. Code § 103

Conditions for patentability; non-obvious subject matter

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 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.

Title 35, U.S. Code § 112 (in part)

Specification

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms also enable any person skilled in the art to which it pertains, or with which it is mostly nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Title 35, U.S. Code § 119

Benefit of earlier filing date in foreign country; right of priority

An application for patent for an invention filed in this country by any person who has, or whose legal representatives or assigns have, previously regularly filed an application for a patent for the same invention in a foreign country which affords similar privileges in the case of applications filed in the United States or to citizens of the United States, shall have the same effect as the same application would have if filed in this country on the date on which the application for patent for the same invention was first filed in such foreign country, if the application in this country is filed within twelve months from the earliest date on which such foreign application was filed; but no patent shall be granted on any application for patent for an invention which had been patented or described in a printed publication in any country more than one year before the date of the actual filing of the application in this country, or which had been in public use or on sale in this country more than one year prior to such filing.

Title 35, U.S. Code § 120

Benefit of earlier filing date in the United States

An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

Please read carefully before signing the Declaration attached to the accompanying Application.

If you have any questions, please contact Morgan & Finnegan, L.L.P.

FORM:COMB-DEC.NY

Rev. 5/21/98

PATENT

Docket No. 3125-40



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Keith R. McNally et al. Group Art Unit: TBA
Serial No. : TBA Examiner: TBA
Filed : September 21, 1999
For : **INFORMATION MANAGEMENT AND SYNCHRONOUS
COMMUNICATIONS SYSTEM WITH MENU GENERATION**

STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
37 CFR §1.97(f) AND §1.27 (c) – SMALL BUSINESS CONCERN

I hereby state that I am

- ☐ the owner of the small business concern identified below:
☒ an official of the small business concern empowered to act on behalf of the concern identified below

NAME OF CONCERN AMERANTH TECHNOLOGY SYSTEMS, INC.

ADDRESS OF CONCERN 12230 El Camino Real, Suite 330; San Diego, California 92130-2090

I hereby state that the above identified small business concern qualifies as a small business concern as defined in 13 CFR §§ 121.3-18, and reproduced in 37 CFR § 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both. I hereby state that exclusive rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled:

**INFORMATION MANAGEMENT AND SYNCHRONOUS
COMMUNICATIONS SYSTEM WITH MENU GENERATION**

by: Keith R. McNally
William H. Roof;
Richard Bergfeld

inventor(s)

described in

- ☒ the specification filed herewith
☐ application Serial No. _____, filed _____
☐ Patent No. _____, issued _____

492100_1

Docket No. 3125-4002

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below and no rights to the invention are held by any person other than the inventor, who could not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

NAME N/A

ADDRESS

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

NAME

ADDRESS

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 C.F.R. 1.28(b))

NAME OF PERSON SIGNING Keith R. McNally

TITLE OF PERSON IF OTHER THAN OWNER Chief Executive Officer

ADDRESS OF PERSON SIGNING

21567 Parvin Drive, Santa Clarita, California 91350

SIGNATURE

Keith R. McNally

DATE

7-20-99

FORM: SMALLBUS
Rev. 05/26/98

NOTE: Separate statements are required from each name person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

PRINT OF DRAWINGS
AS ORIGINALLY FILED

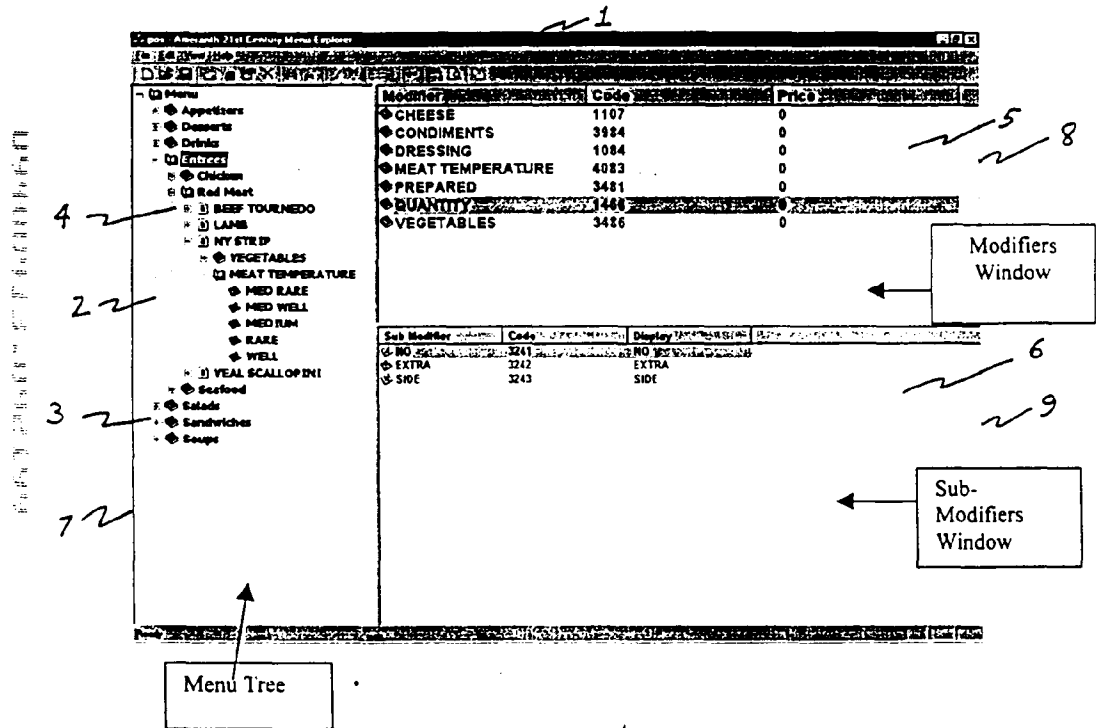


FIGURE 1

The image shows a 'Modifier' dialog box with a title bar containing a close button (X). Inside the dialog, there are four labeled text input fields: 'Long Name', 'Short Name', 'Path', and 'Price'. The 'Price' field contains the number '0'. At the bottom of the dialog, there are three buttons: 'OK', 'Cancel', and 'Browse...'. A handwritten checkmark and the number '10' are located to the right of the dialog box.

FIGURE 2

Menu Category

Long Name:

Short Name:

OK Cancel Browse

FIGURE 3

The screenshot shows a 'Menu Item' dialog box with the following fields and content:

Long Name	Code
Chicken Alaska	5612

Short Name	Price	Prep Time
ChwAls	12.95	12

Recipe:

Flame broiled brandy marinated Tender Chicken Breast topped with a creamy cilantro sauce. Served with steamed broccoli, carrots and zucchini.

Spices include lemon pepper, paprika, ginger.

At the bottom are buttons for 'OK', 'Cancel', and 'Browse'.

FIGURE 4

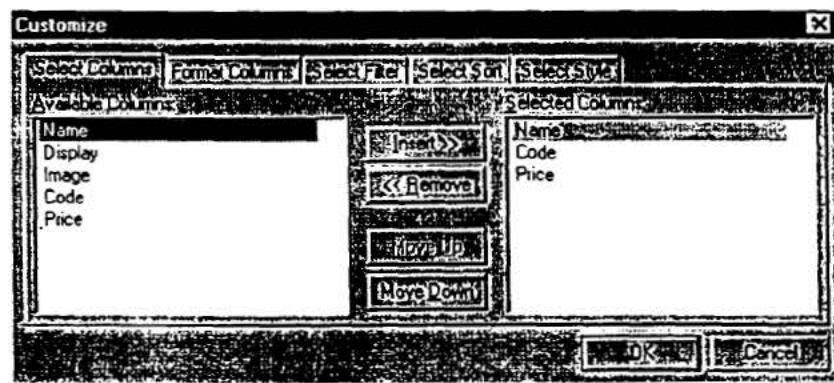


FIGURE 5

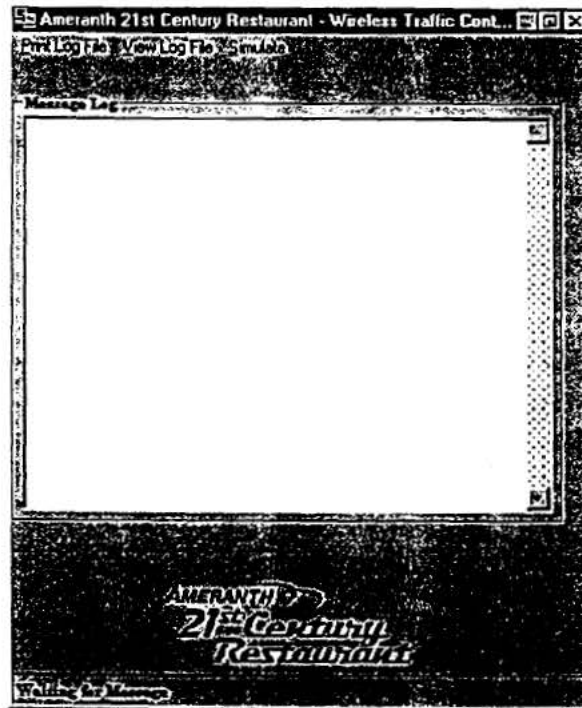


FIGURE 6

POSce System

Login | CHECKS | ORDER | VIEW | PAY

Choose Item: Tbl 67 Glt 2

Add	Deasert	Drinks	Entrees
Salad	Sdwich	Soupe	

Direction

MAIN	PREV	PAGE	MODS
------	------	------	------

Select Guest to Order for:

1	2		
---	---	--	--

Last Selection:

	REMOVE LAST
--	-------------

OK Cancel

15

16

FIGURE 7