Test Drive

Wideopen.office, Wideopen.call, And Wideopen.group

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Comdial has outdone itself with its wideopen.office server (which integrates with the Comdial DXP and DXP Plus) and its wideopen.group and wideopen.call client software. The client applications encompass several aspects of CTI, including screen pops, database connectivity, and several dialing methods and capabilities.

Wideopen.office, Comdial's own telephony server, connects to one of the DXP's serial ports and allows TSAPI applications to run in all popular LAN environments. It is TCP/IP and NetBIOS compatible, and it works with most PC operating systems, including Windows 95 and Windows NT. Since it is client-based and doesn't require a separate PC, wideopen.office is extremely flexible and cost-effective. It is an ideal solution for small and medium-sized businesses that want to implement high-quality CTI solutions at a reasonable cost.

Since wideopen.office is a TSAPI-compliant server, it allows TSAPI applications to connect and communicate with Comdial's fully digital DXP phone switch. These TSAPI applications include: FastCall Professional for Comdial (which Comdial OEMs from Aurora Systems); wideopen.call; and wideopen.group (which Comdial OEMs from Q.SyS).

Wideopen.call and wideopen.group are both CTI applications that give you full call control capabilities, such as answering, transferring, and conferencing calls. They also provide screen pop functionality with database connectivity. The wideopen.group software is very similar to Q.SyS's PhoneWare product.

In this review, we will focus on Comdial's wideopen.group and wideopen.call applications. (For a quick rundown on these two programs, see Table 1.) We will save the FastCall product for a future review.

INSTALLATION

We began by installing the wideopen.office server software onto one of our Windows 95 testing machines. Our only problem occurred when we tried to get the server's serial port to communicate with the Comdial DXP, which didn't work at first. We figured we chose a COM port that was being used by our serial mouse. We changed the COM port setting on the wideopen.office software from COM1 to COM2, but it still couldn't detect the DXP.

We decided to test the phone cable connecting the DXP and the special adapter that was attached to one of the COM ports. When we used the cable to hook up an analog phone, the phone didn't give a dial tone. So, it appeared the phone wire was no good. But when we switched to a phone wire we knew worked, we still couldn't get wideopen.office to communicate with the DXP.

We popped open the computer and saw that a modem inside was set to COM3. Although COM3 has a different I/O port address than COM1 and COM2, it shares the same interrupt as COM1 (IRQ 4). This is what caused the hardware conflict. We changed the modem to IRQ 2, and everything worked fine.

If not for the bad phone wire and the modem conflict, the hardware installation would have been quite easy. In fact, later on, when we needed a proxy server installed near our Comdial DXP, we had no problems during our (re)installation of wideopen.office on our new Windows NT 4.0 machine.

On the client side, we began by installing the wideopen.office client disk, which is required to communicate with the server. This installation went very smoothly. We then installed a CTI application called wideopen.group on several Windows 95 machines. We were up and running in no time. We also installed wideopen.call on a few machines.

Overall, we gave all three applications a 4.90 rating for installation. Our only recommendation is that Comdial provide a few tips for resolving hardware conflicts on the COM ports. When the switch refused to work, we weren't sure what to do first. Was the phone cable still bad? Was the dongle bad? Did we had a hardware conflict? Was one of the COM ports shorted? Although we were able to solve our hardware conflict pretty quickly, sometimes even the most experienced MIS staffer, computer engineer, systems integrator, etc., can take some time to resolve a hardware conflict.

A "splash screen" of troubleshooting suggestions could be useful should the server fail to log onto the DXP switch. Such suggestions could include "remove any modems," "test the phone wire," "test your other COM

port by changing your mouse to that port," etc.

DOCUMENTATION

• ***Wideopen.office:*** Of the three Comdial programs we reviewed, this was the least complex, and hence it demanded the least in terms of detailed documentation. Nonetheless, the installation instructions were well organized and well illustrated with screenshots.

Although the documentation included a troubleshooting page, several key troubleshooting techniques (including some of those we just mentioned) were missing. The techniques that were listed, however, did include useful suggestions. (Rating: 4.75.)

• ***Wideopen.call:*** The manual briefly explained each of the icons, but didn't get into specifics, particularly the database functionality. Most of the documentation was contained in the online help, which was a little skimpy. For such a feature-rich program, we expected more documentation. (Rating: 3.90.)

• ***Wideopen.group:*** The wideopen.group manual was the most elaborate piece of documentation. It had an excellent table of contents and index, and it provided an ample assortment of screenshots throughout. Each feature was described in detail in its own chapter. (Rating 4.95.)

Wideopen.call

FEATURES

• ***Graphical User Interface:*** The wideopen.call displays a main window and three secondary windows within the main window (Figure 1). All three secondary windows can be displayed at once, although only one is active at any one time.

• ***Contact List Window:*** The Contact List is a simple personal database, or PIM (personal information manager), that you fill with the names, telephone numbers, addresses, etc., of your contacts. You can use the built-in Contact List, or you can use another brand of personal database outside the wideopen.call window. If you have caller ID, a contact's call will trigger an automatic display of the information you have on the caller.

• ***Telephone Window:*** The Telephone Window shows incoming and connected calls. Using your mouse, you can click on menu items or the toolbar to carry out call control functions such as putting a call on hold, hanging up, transferring, and conferencing. Drag-and-drop functionality for these functions is also available.

• ***Call Log Window:*** The Call Log window shows completed calls, including information you can copy to a

Table 1. Wideopen.call And Wideopen.group: A Comparison

	Wideopen.call	Wideopen.group	Remarks
GUI	Every main component (dialing and call control; contact names; and call log) is on the same screen.	Lacks a Windows 95 "look and feel." Bubble help and an option to have contacts on first screen would improve GUI.	Wideopen.call has a slight edge here with its well-organized main screen. Also, this program has a slightly better GUI for entering contact names.
Built-In Personal Information Manager	Yes (Better overall)	Yes	Wideopen.call's PIM can store multiple phone numbers for each contact (home, work, pager, etc.) However, if you plan to use your own PIM or database for customer contacts, these advantages may be unimportant.
Call Log	Yes	Yes (Includes a statistics button; uses Microsoft Access format)	Even though wideopen.group lacks complex reporting features, you can open the log file in Microsoft Access and do your own reporting. (Reports could include "which number was called most often" or "how much time was spent on the phone in January.")
Reporting Capabilities	Yes (But seems to use a proprietary format)	Yes	Wideopen.call might benefit from an export feature such as ASCII delimited, DBF, or Access.
Monitoring Extensions	No	Yes	If you don't need to monitor other people's extensions, or if you would like to withhold this feature from employees (for security or other reasons), you may prefer wideopen.call.
Database Connectivity	Yes	Yes	Nearly identical.
Application Restore	On incoming calls	On incoming and outgoing calls	For outgoing calls on wideopen.call, you need to Alt-Tab to the application or select its minimized icon.
Dial Last Number	Yes (Indirectly)	Yes	If you click on the name at the top of the call log (assuming you have this window displayed), you can perform this function in wideopen.call.

Contact List. Information in the Call Log includes caller, location, phone number (caller ID), status (inbound, outbound, conference call, busy, etc.), length of call, date and time of call, as well as other useful information. You can also edit, delete, save, and create new call logs.

•***Dialing And Storing Phone Numbers:*** This feature is particularly useful. You can enter the country code, area code, number, and extension for each phone number. Each number can be associated with either work, home, fax, mobile, pager, or alternate (Figure 2). Each of these different phone numbers can have specific dialing instructions, which are defined in the Number Setup advanced screen (Figure 3).

•***Confirmation Notices:*** You can receive confirmation after deleting a contact, conferencing, transferring, holding, etc. You can also arrange to have a .WAV file play when there is a message waiting on your voice mail system (Figure 4).

•***Call Control:*** The call tab on the Application Options screen gives you several call handling capabilities. On an incoming call, you can animate the minimized icon, restore the entire wideopen.call application, or restore just the simple telephone window. Notification and database lookup preferences are also on this tab screen (Figure 5).

Other call control features are accessed via the location tab under Application Options. This tab is used to modify your North American Dialing Plan, access the Telephony Control panel, and add dialing suffixes. Within the Telephony Control panel, you can change the dialing properties, such as adding a "9" to the dial string (Figure 6). (See the sidebar entitled *Prefix Fix With Wideopen.call*.)

•***Database Connectivity:*** With the Wideopen.call program, you can hook into several types of databases for creating a screen pop. These databases include Polaris PackRat 5.0, Symantec Act 2.0, TeleMagic 2.0, GoldMine, and Access, as well as DDE-compliant databases. Options for generating screen pops are shown in Figure 7.

OPERATIONAL TESTING

We really liked the ability to assign multiple phone numbers to each contact. You can store a contact's pager number, home phone number, work number, fax, and mobile number. Address information can also be stored, as well as the contact's e-mail address. With wideopen.call, you can store many ways of reaching your contacts, which is a plus. Notes can also be attached to each contact. Also, notes can be attached to each phone call in the Call Log.

We also liked the drag-and-drop conferencing capability. Having a simple conferencing method is a big plus because conferencing on many phone systems involves complex and awkward procedures. However, with wideopen.call, we were able to set

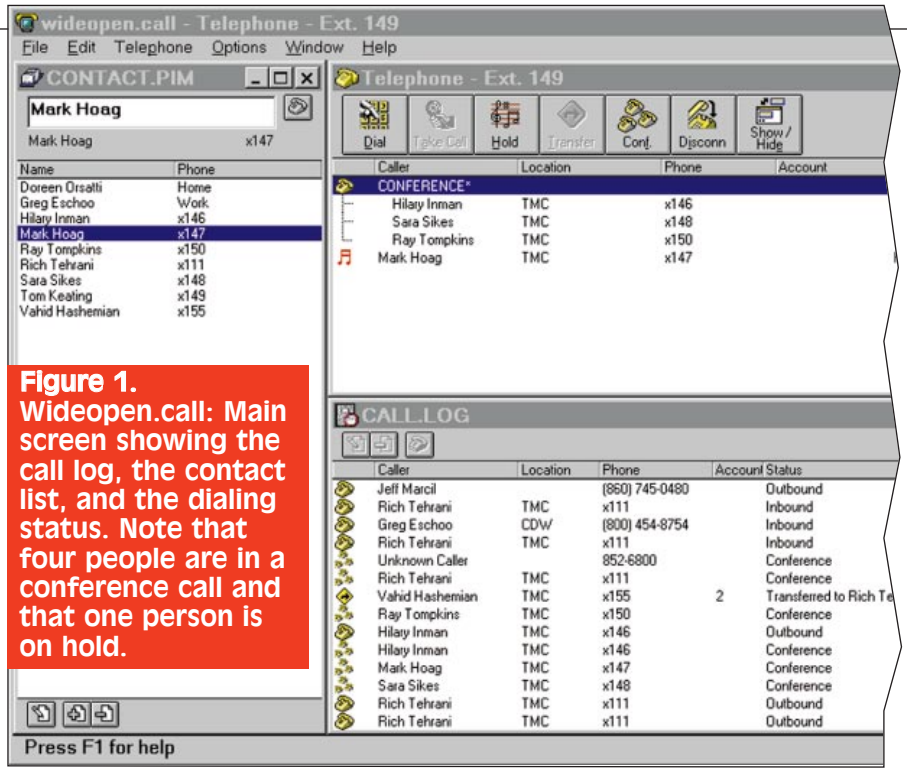

Figure 1. Wideopen.call: Main screen showing the call log, the contact list, and the dialing status. Note that four people are in a conference call and that one person is on hold.

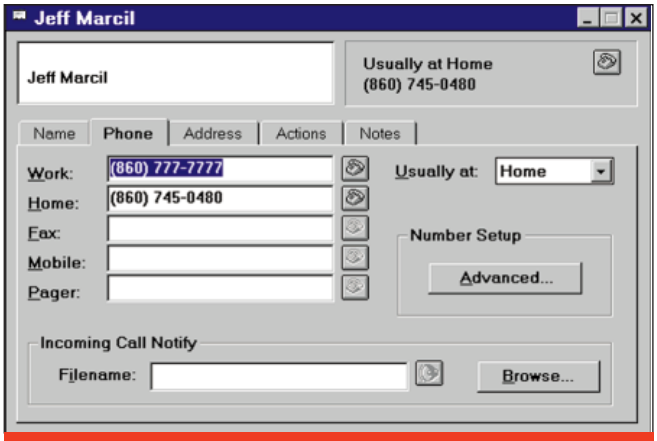

Figure 2. Wideopen.call: Screen showing how you can associate multiple phone numbers with a single contact.

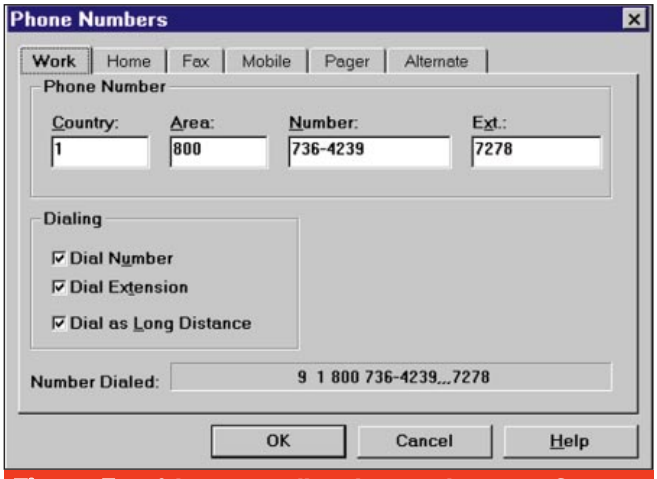

Figure 3. Wideopen.call: Advanced screen for number setup. Here, you can set up dialing properties (and provide for such things as extensions or whether the number is long-distance).

up a four-person conference call with just a few clicks (Figure 1.)

We didn't like the default that used a double-click on a contact record to go into an "edit" mode. Of course, it's nice to be able to edit your contacts. But in general, you dial your contacts more frequently than you edit them. So, our preference is to use the double-click for dialing contacts and the "right-click" for editing. In fact, this is the arrangement found in many software programs.

With wideopen.call, however, dialing a contact involves a click on the contact name followed by a click on the small phone icon. You can also drag-and-drop the contact onto the Telephone Window. Of the two methods, we preferred the latter. But we still think a double-click to dial would be better still.

Of course, a different arrangement may make sense in the Call Log screen, where you usually want to modify the Call Log entry and perhaps add a note. In this case, a double-click should bring you into "edit" mode rather than "dialing" mode. Now, if a double-click "dials" within the Contact List window, and a double-click "edits" within the Call Log, then this could cause some confusion, not to mention accidental phone calls.

Perhaps preventing this sort of confusion is what Comdial had in mind when it created the phone icon for dialing. Nevertheless, we'd like to be able to set this option ourselves. Thus, we'd like to see separate user-definable preferences (dial or edit — right-click or left double-click) for the Contact List and the Call Log within the application settings. This gives the user the best of both worlds.

We should also note that in order to answer a call, you have to click on the Take Call icon. Double-clicking on the incoming call doesn't work, although you can click and drag the phone call onto the Take Call icon on the toolbar. However, we feel a double-click to answer the call should be allowed in the next version.

ROOM FOR IMPROVEMENT

Although the wideopen.call program is easy to figure out, the printed documentation could stand some improvement. The online help, the main source of "documentation," was very good, although here, too, we noticed a few omissions.

We liked the drag-and-drop call control, but we would have liked the option of simply double-clicking to perform certain call control functionality.

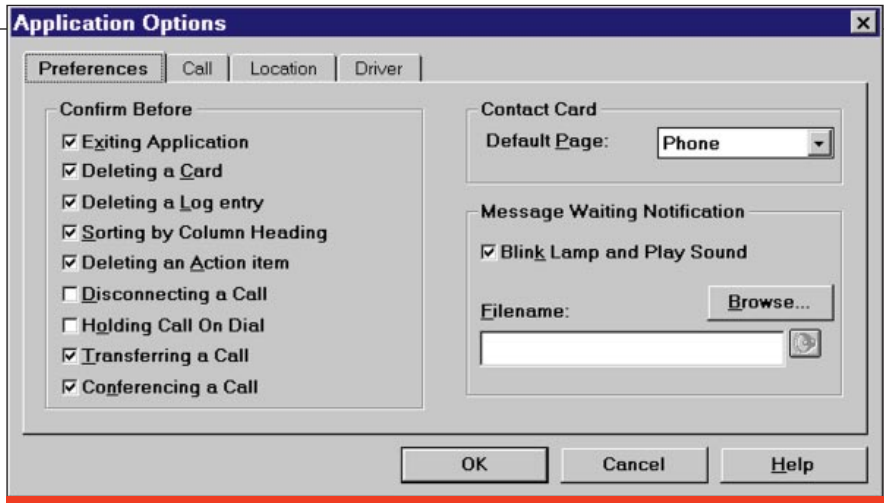

Figure 4. Wideopen.call: User-definable preferences and options.

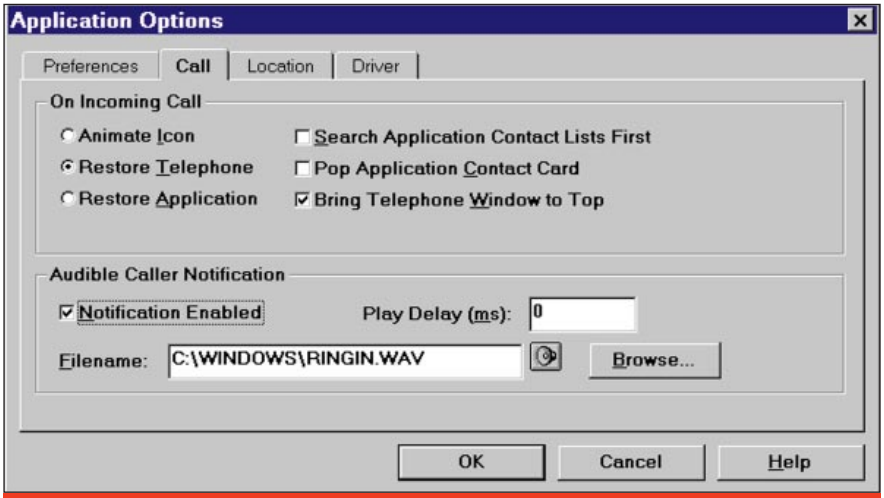

Figure 5. Wideopen.call: Call control features and database handling.

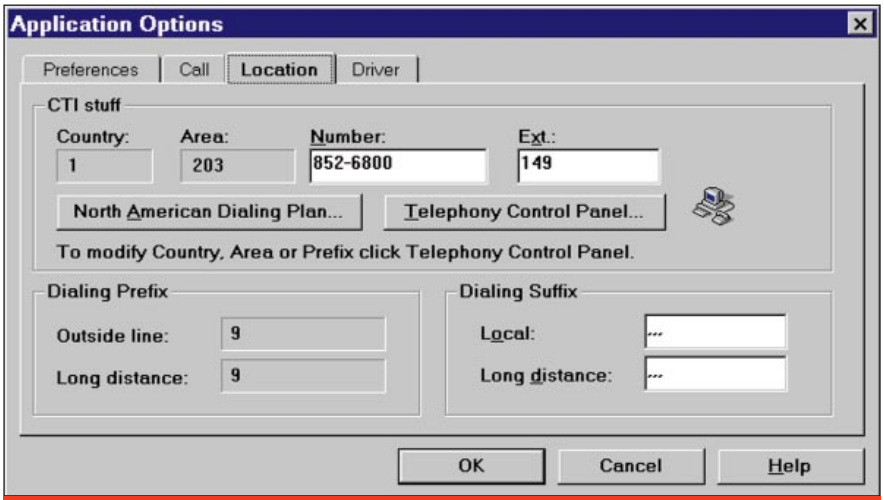

Figure 6. Wideopen.call: Setup screen for modifying dialing properties, complying with the dialing plan, and accessing the telephony control panel.

Another "drag-and-drop" issue: we'd like to be able to select multiple internal extensions and "drag" them all together to create a conference. If an extension is not answered, then the extension would not be added to the conference.

We realize such options aren't part of TSAPI or TAPI. Furthermore, there's no saying any particular phone system's design would allow these

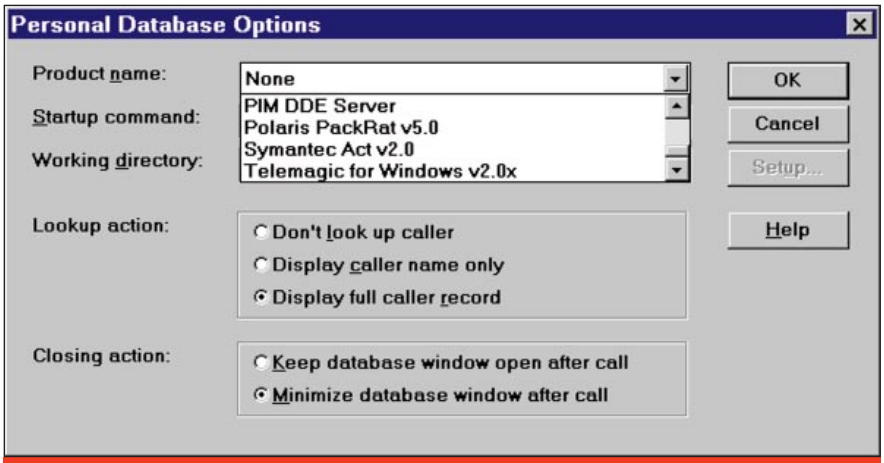

Figure 7. Wideopen.call: Database connectivity features and options for handling lookups for screen pops.

options. (For example, with our PBX, each extension needs to be called and added to the conference one at a time.) Nonetheless, we thought we'd raise these points in case any readers were thinking of ways to improve the current CTI standards.

We liked the Contact List, but we noticed that it soon became so full of phone numbers and contacts that entries started to scroll off the window. We realized that if we kept adding contacts, finding any one of them could become difficult. Thus, we'd like to see folders within the Contact List. The program does give you the option of using multiple contact databases (which can be open when necessary), but we'd prefer using folders, which is much quicker than switching between database (contact) files. With folders, we could organize our contacts into such categories as internal, friends/family, hotlist, vendors, and technical support.

Wideopen.group

FEATURES

•***Graphical User Interface:*** The wideopen.group program consists of a preview window and a call window. In addition, there is a toolbar on top and an assortment of phone icons at the bottom (Figure 8).

•***Inbound Dialing Features:*** The inbound option allows your configuration to reflect whether the area code should be stripped from all incoming calls. Stripping off the area code will create the number that will be used for database preview and screen pop action.

•***Outbound Dialing Features:*** The

Prefix Fix With Wideopen.call

While testing wideopen.call, we discovered that we were unable to associate different dialing prefix preferences with different telephony devices. This limitation, which derives from the way Windows 95 handles telephony drivers, forces you to accept all-or-nothing options, such as always — or never — adding the "9" prefix.

In our office, many of our computers have two telephony drivers. In these two-driver computers, we typically have a modem (which uses the Unimodem Service Provider for dialing) and a TSAPI Control Panel Bridge (which connects wideopen.call to the wideopen.office TSAPI server). The modems are hooked up to standard analog phone lines, not our PBX, so they don't need a "9" prefix for dialing. On the other hand, our digital phone-sets, which are hooked up to the Comdial DXP, require a "9" prefix to make an outgoing call.

When we try to use one of our dial-up connections on our modem, it adds a "9" prefix to the phone number, which we have to select and delete before clicking on the Connect button. Certainly, a system that automatically adds a prefix is self-defeating if the user must delete the prefix before dialing out.

Windows 95, however, does allow you to create multiple locations to accommodate different dialing rules. This helps when you are on the road with a laptop. For example, you can change your calling plan. Unfortunately, changing your "location" requires that you go into Control Panel, then Modems, and then Dialing Properties. Then you enter a change in the drop-down box to select a new location. A tedious procedure, and unsuitable for stationary desktop PCs. It would require you to change your dialing location each time you changed from using the modem to using your telephone.

A quicker solution would be to have a system that would automatically omit (or add) the prefix as needed. We should be able to associate individual dial-up connections with certain dialing properties. And we should be able to associate different telephony drivers/devices with different dialing properties. Then, the computer would handle all the dialing variations and do all the work for us. (As it should be!)

In the interim (while Microsoft fixes this problem — we hope), we recommend that Comdial add an option within wideopen.call for adding prefixes. Then, wideopen.call wouldn't have to rely on Windows 95 to determine dialing prefixes. We could just set the prefix to None in the Telephony control panel and rely on wideopen.call to add dialing prefixes. In fact, the other Comdial product we reviewed, wideopen.group, does use it's own interface for determining prefixes. ■

outbound option allows you to decide when it's appropriate to include the area code in outbound calls. There are three options: always include the area code, never include the area code, or include the area code according to your configuration preferences.

Taking the last option can help you conform to the North American Numbering Plan. For example, the program allows you to configure which exchanges should be treated as local toll, and which exchanges should be treated as long-distance. (All other exchanges are treated as local.)

When using this option, wideopen.group will determine how a number will be treated.

In the case of a local number, wideopen.group will remove the area code (if necessary); in the case of a local toll number, it will remove the area code (if necessary) and add a 1 as a prefix; in the case of a long-distance number, it will add the area code (if necessary) along with a prefix of 1. In addition, the program applies the local prefixes and suffixes that have been defined in the normal dialing options.

•***Other Features:***

-Built-in personal directory. (See Figure 9 for the personal directory screen.)

-Drag-and-drop call control. (Includes putting a call on hold, as well as answering, transferring, and conferencing a call.)

-Database connectivity. (Allows you to have screen pops showing a caller's information using data from your own database.)

-Application restoration. (Brings up the application on incoming calls and outgoing calls. If you pick up your handset to make an outgoing call, and access an outside line, the application will pop up on your screen.)

-Phone number testing. (You don't actually have to make an outgoing call to test a phone number to make sure it dials correctly.)

-Hold time and duration of call real-time statistics.

-Redial last phone number.

-Function keys. (You can use function keys instead of the mouse to perform call control. This feature should appeal to call centers, since function key access is faster than mouse access. See Figure 10 for the program's display of function key definitions.)

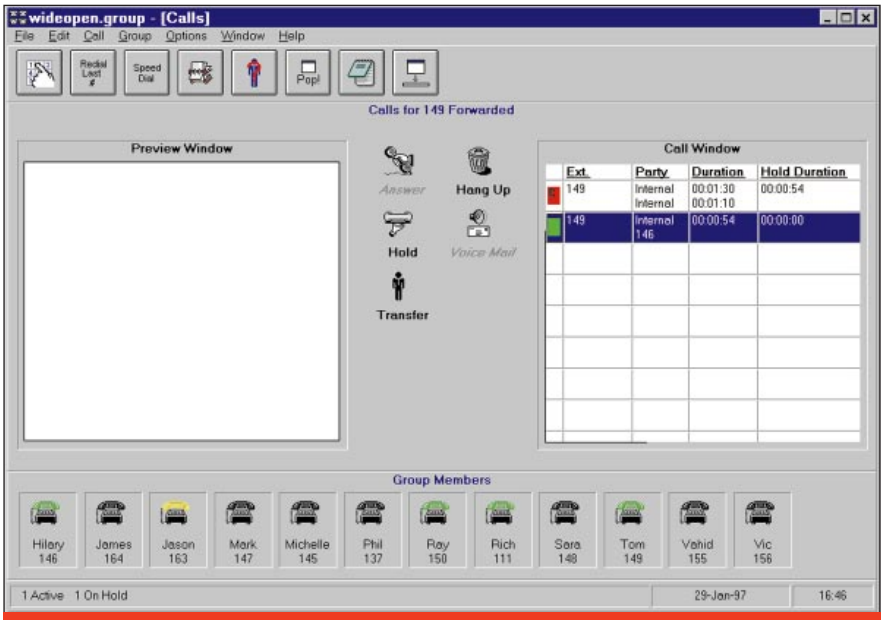

Figure 8. Wideopen.group: Main screen. Note the display shows two calls (one is live; the other has the caller on hold).

OPERATIONAL TESTING

•***Log-Off Bug:*** You cannot change the wideopen.group's telephony applications while logged onto the program. If you try, wideopen.group will issue a warning and ask if you want to log off to continue. At this point, when we clicked on "Yes," we got a log-out time-out failure, and the application crashed. (We saw an error message just before the crash that read "Logout Failed (Timeout) Telephony Disabled.")

It seemed as though the client wasn't logging off of the wideopen.office TSAPI server properly. Perhaps the server thought it was still connected. In any case, when we tried to go back into wideopen.group, we got several database errors, which we had to clear with the OK button. (One such error read "Error #3279 occurred in module: PERSDIR.BAS:PersDir_CallDB. Database engine has already been initialized."

Similar errors occurred for Calllog.bas and Parent.bas, as well as a

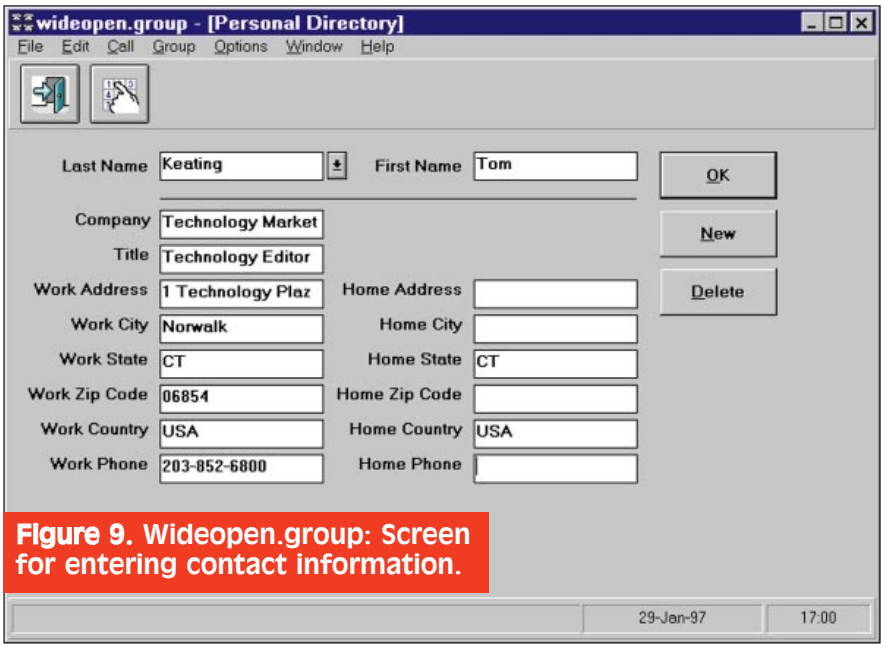

Figure 9. Wideopen.group: Screen for entering contact information.

couple others. We suspect that either a record is being locked or (more likely) that the connection isn't being released (and that wideopen.office still thinks the user is logged on).

Rather than do a "full shutdown," we decided to do a "shutdown" ("close all programs and logon as new user?"). We figured doing so would suffice to break the network connection and allow us back into wideopen.group. (Besides, we didn't feel like waiting two minutes for the computer to shutdown and do a full reboot!) As it turned out, the semi-shutdown worked, and we were able to reenter wideopen.group.

Oddly enough, when we closed wideopen.group and then got back in without logging onto the server (we clicked on Cancel to avoid logging on), we were able to change the telephony features without crashing. Evidently, the problem isn't a matter of accessing the telephony features; rather, there's something amiss with the automatic logoff.

•***Configuration:*** A centralized, easy-to-use configuration screen allows you to set up wideopen.group pretty much the way you want it. Note the screen-shot in Figure 11, which shows how dialing should affect the wideopen.group application.

•***Using The Mouse For Call Control:*** In order to put a call on hold, hang up, etc., you have to drop a call precisely on the icon. (A little too precisely. We think the coordinates should be loosened up a bit to allow for a quick drag-and-drop.)

We noticed that if you put a call on hold, you can still drag the caller to the hang-up icon without bringing up the standard "unavailable" symbol (a black circle with a line through it). The absence of the unavailable symbol would seem to indicate that you can hang up on a caller who is on hold, but in fact you can't. You have to answer the call first, and then hang-up.

In general, it's best if the display somehow reflects the options that are available to you. Thus, it might help if the hang-up icon could be "grayed out" with respect to a call on hold. Alternatively, a warning message could appear to remind you that you must pick up a call that has been put on hold before you can hang up.

•***Colors:*** We would like to see a legend or key indicating what the different colors mean. This legend could be positioned at the top or bottom of the screen and could be turned on or off, depending on the user's preference.

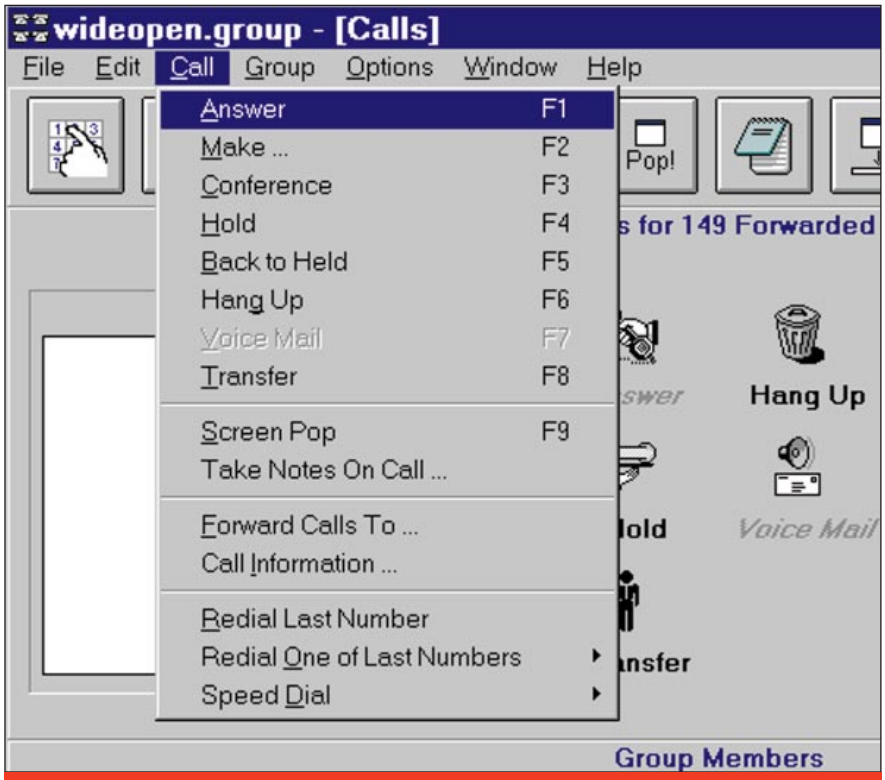

Figure 10. Wideopen.group: Call menu showing a list of function keys. (Call centers will find these invaluable.)

An example of the program's use of color is shown in Figure 8, where several extensions are being monitored and assigned color indicators according to extension status. A yellow phone icon means the phone extension is ringing; green, the extension has either taken the call or has accessed an outside line; black, the phone is on-hook and not in use. To indicate off-hook status on internal extension calls, the handset on the phone icon will still be black, but the handset will move up a bit.

•***Speed Dialing:*** We loved the speed dial capabilities in wideopen.group. With just two mouse clicks you can call your spouse, your broker, your favorite suppliers, etc. We did have one problem, however, when we tried to modify one of the speed dial entries. We didn't see an edit button.

We tried clicking on it and then doing a single-click, which is how Windows Explorer and many other Windows 95 programs allow you to rename file/data entries. The single-click method didn't work. We tried hitting Enter on the selected entry. This didn't work, either.

Just by chance, we found that double-clicking on an entry would put us into edit mode. This method is not very intuitive (especially since the speed dial uses a grid which normally doesn't require a double-click to modify an entry). A more intuitive method may require wideopen.group to conform more closely to standard Windows 95 interfaces. (See Figure 12, which displays the speed dial GUI.)

It appeared that the speed dial feature interprets pause characters (such as commas) as part of the phone number. If we had our way, dialing a phone number such as "1-800-555-5555,,,1234" would include a pause to allow time for a connection to be established and for an auto-attendant to pick up. Then, after the pause, wideopen.group would automatically enter the extension.

Unfortunately, wideopen.group seems to interpret a number with pause characters as an international number, so it adds a 011 prefix. Evidently the commas count toward total phone number length, the property that wideopen.group uses to decide whether a call is international.

The only workaround we could come

up with for this bug is to turn off the "Use Dialing Options when Making a Call" option in the Configure screen. Then, you make sure you always enter the correct phone number exactly as you would dial it by hand, including prefixes, area codes (or no area code), etc. This solution, however, robs you of the some of the program's power and flexibility by disabling the Dialing Options (such as the automatic parsing of area codes or the removal or addition of prefixes and suffixes).

Fixing this bug by modifying the source code would be a simple job. We encourage Comdial to implement this suggestion in wideopen.group's next release, and thereby avoid having phone numbers misinterpreted as being international.

Another problem is that wideopen.group doesn't allow for pauses in the dial string. Comdial told us that they are aware of this issue and mentioned that it has to do with the TSAPI specification and not their program. (For more on dialing options, see the sidebar entitled *In A Connecticut State Of Mind*.)

• ***Adding Extensions:*** One of the neatest features of wideopen.group is the ability to add frequently called extensions to the bottom of the screen. These numeric extensions can also be assigned names. So, you might see numbers such as "100 Chris," "101 John," and "0 Operator." What's great about this feature is that the phone icons actually move and change colors. If one of the persons on your "favorite extension list" picks up their handset, you will actually see the handset on the phone icon lift up. Then, if that person presses a button to access an outside line ("9" or "8" or another button on the phone), the phone icon will actually turn green.

This feature will appeal to call center managers who need to monitor their agents. It's also great for anyone who needs to talk to a co-worker. If you notice that the person you need is on the phone, you don't have to waste your time dialing their extension. You can wait until the phone icon goes back to it's on-hook state.

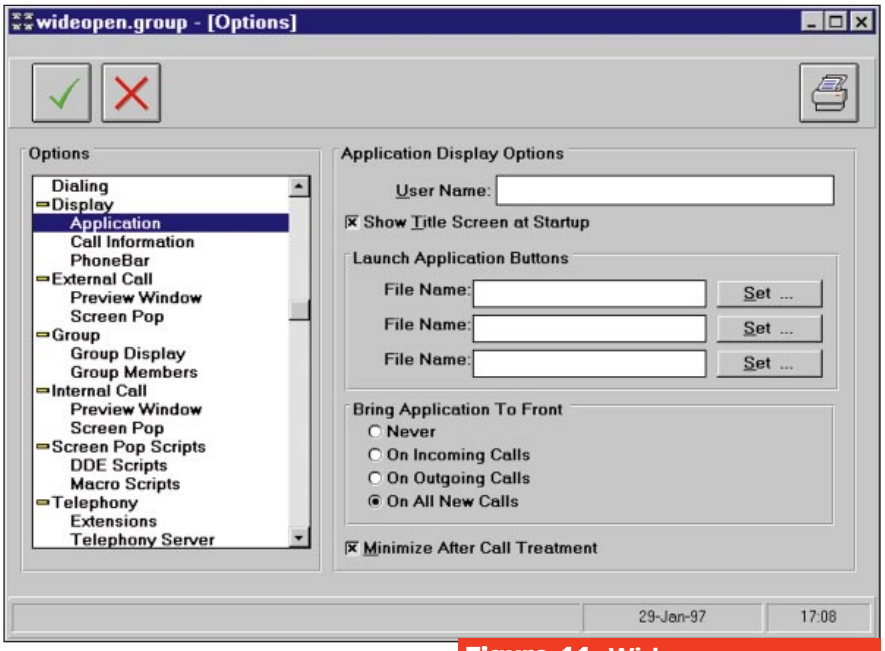

Figure 11. Wideopen.group: Powerful and user-friendly configuration screen. The application configuration is currently being displayed.

Besides saving time, this feature can prevent a lot of aggravation. Most of us know how distracting it is to be on the phone and have the same person call your extension every two minutes checking to see if you are off the phone yet. Often these internal calls include a series of beeps or tones that can disrupt your current conversation.

This feature alone emboldens us to recommend it to just about anyone who can afford it. Co-workers in our office who have tried it now refuse to do without it. (See Figure 8, which shows the color-coded phone extensions at the bottom of the main window.)

• ***Call Log:*** This is another feature call center managers will find useful. It keeps a log of every call (Figure 14). The Call Log is also useful to the agent, who can use it to monitor his or her performance. The only drawback to the Call Log is security. The Call Log can be reset by anyone using the program, including the call center agent. There is

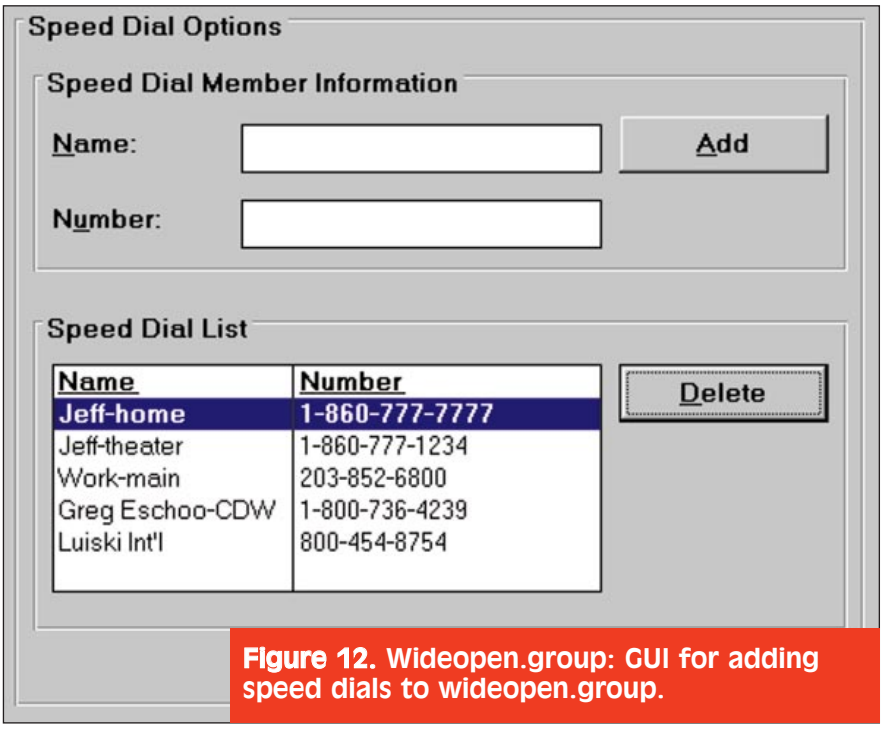

Figure 12. Wideopen.group: GUI for adding speed dials to wideopen.group.

no password mechanism that would limit access to the call center manager. (This is definitely a Room For Improvement item.)

ROOM FOR IMPROVEMENT

•***Windows 95 GUI Compliance:*** Issues include wideopen.group's use of a large X icon for cancel, a check-mark icon instead of an OK button, and some other strange icons. Bubble help would have been helpful. Also, as mentioned earlier, a double-click to edit the fields for speed dialing seems counterintuitive. We've been told that refinements to implement a more consistent Windows 95 "look and feel" were in the works.

•***Multiple Group Member Lists:*** We'd like to see multiple "group member" lists (such as department groups or personal groups to hold the phone numbers of friends, family, etc.) that could be changed on-the-fly. Also, we'd like to be able to rearrange (drag-and-drop) the Group Member icons at the bottom of the main screen to suit the user's tastes. Currently, all you can do is sort the group member icons by name.

•***More Buttons:*** There should be a button on the toolbar for customizing and changing speed list numbers without having to go into the "Configure" screen. A Conference button should be available, should the user not wish to drag-and-drop.

It's possible that a Conference button was omitted by design, to encourage users to take advantage of the drag-and-drop functionality. (Other options for conferencing, such as a function key and a menu option, are unlikely to

In A Connecticut State Of Mind

We encountered a problem with dialing options that we might have missed were we not located in Connecticut, a state where you may have to pay long-distance charges even if you make calls to numbers within your area code. In addition, you have to use the area code for any long-distance call, even if the number you are dialing shares your area code.

In our area, some local exchanges are considered local calls; and others, long-distance. We added a couple of the local exchanges (852 and 838) to the local exchange box within wideopen.group. A call to a number with one of these exchanges, say 203-838-4070, should be dialed as 838-4070. Wideopen.group, however, added a "1" prefix and dialed it as 1-838-4070, which is actually how we used to dial long-distance numbers within our state. We also tried dialing a long-distance number within our area code (203-734-5644). Wideopen.group changed the number to 734-5644, which is incorrect. The program treated the call as a local call because of the 203 area code (Figure 13).

The only way around these dialing problems would be to add all the long-distance exchanges in our state to the long-distance box. Since there are hundreds of these long-distance exchanges within our state, this option is impractical.

We suspect the wideopen.group software was developed in a state that has rules different from those in Connecticut. Although the software's dialing options are flexible enough to get every state to work, entering every local exchange can be quite a chore. Instead, we would like to see a check box for turning on an "exclude" mode. What this would do is reverse the logic on just the long-distance exchange box, which currently uses "include" logic. The logic would then be, "if the number exists in the long-distance exchange box, then exclude this number as being a long-distance number." Better yet, the program could have an option box to include or exclude the area code for a local exchange, and another option box to include or exclude the prefix "1" for a local exchange. This would be a much more user-friendly and intuitive solution.

Out of all the products we have seen thus far, the best in terms of stripping area codes, adding prefixes, etc. is Wildcard's SatisFAXtion-On-Demand (reviewed in vol. 2, no.1). We suggest programmers and developers look at this program's model for dialing. ■

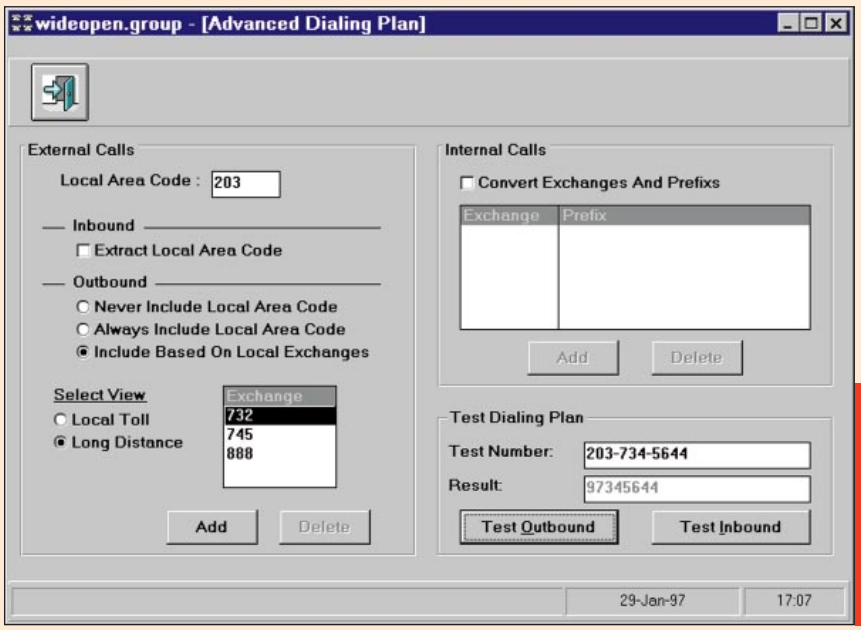

Figure 13. Wideopen.group: Powerful dialing setup screen, which modifies phone numbers (based on whether they are "long distance" or "local") to ensure they are dialed correctly.

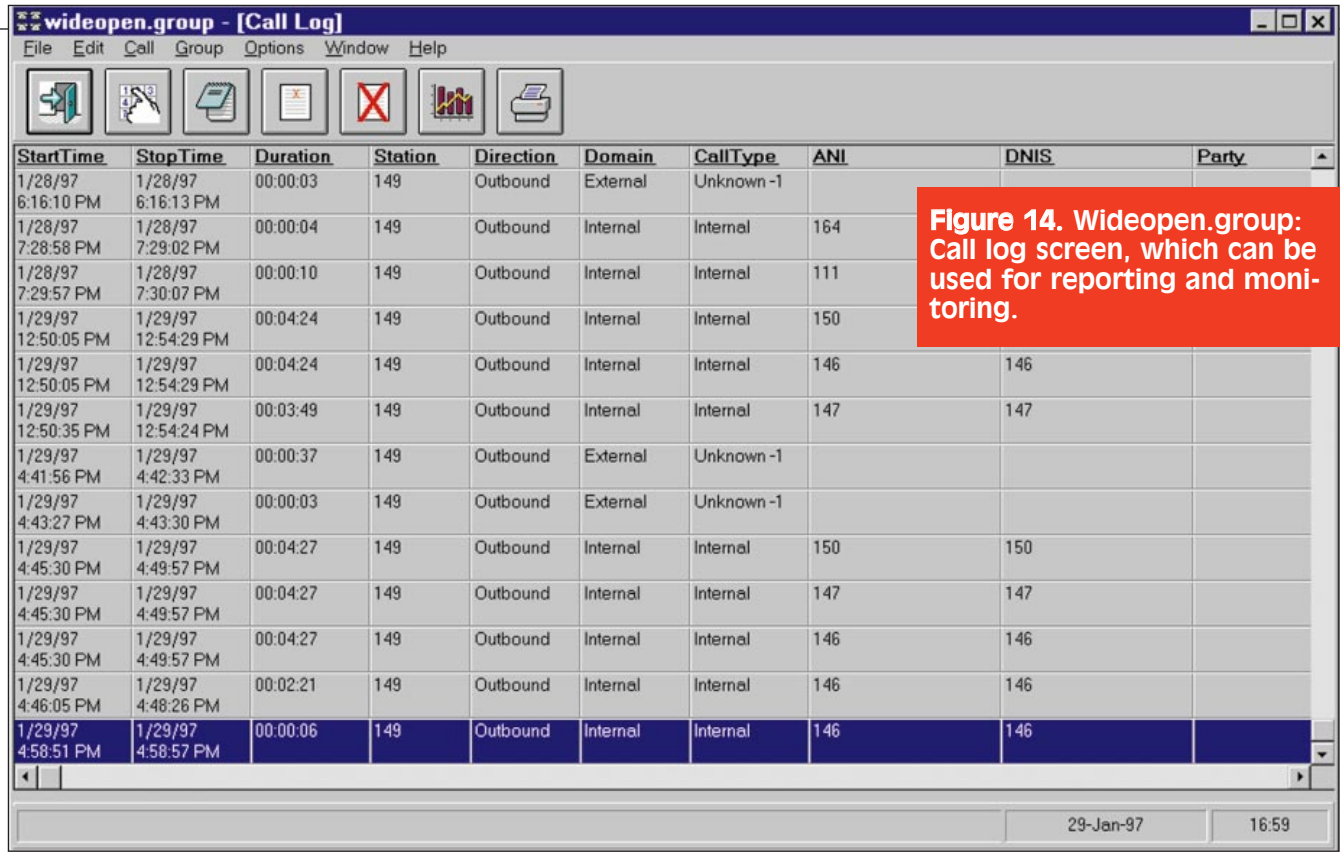

Figure 14. Wideopen.group: Call log screen, which can be used for reporting and monitoring.

divert users. But a conference button could lead people to forget all about the drag-and-drop.) Still, our philosophy is that users (or at least system administrators) should be able to satisfy their own preferences. Thus, we'd like users to be able to show or hide a conference button at their discretion. After all, drag-and-drop, which is admittedly a great feature, is not for everyone.

• ***Phone Icons:*** We found that the program was a bit finicky in accepting "double-clicks" on phone icons to dial extensions. Sometimes it took two or three tries (double-clicks) to make a call.

RATINGS (1-5)

Wideopen.office
Installation: 4.90
Documentation: 4.75

Wideopen.call
Installation: 4.90
Documentation: 3.90
Features: 4.90
GUI: 4.85

Wideopen.group
Installation: 4.90
Documentation: 4.95
Features: 4.75
GUI: 4.80

CONCLUSION

Both wideopen.group and wideopen.call are excellent products. Both are easy to use, and both are great productivity enhancers. Although we suggested improvements throughout this review, we did so out of our enthusiasm for the products. They are so close to perfection, thinking of ways to make the products a little more perfect is almost too easy.

Wideopen.group encompasses several aspects of CTI, including screen pops, database connectivity, and several dialing methods and capabilities. Most of these features are nearly perfect. The only thing that may need a little work concerns the dialing methods. Keep in mind, however, that many CTI products haven't even attempted to tackle the problem of stripping area codes, figuring out if a call is local, etc. These products usually have you manually edit the number before dialing. Or they simply dial incorrectly. At least wideopen.group makes an attempt to correct phone numbers.

Thus, we can't complain too much if the dialing methods aren't perfect. Nevertheless, if Comdial and Q.SyS implement some of our suggestions for the dialing methods, then wideopen.group will receive even higher praise from our CTI Labs team! Regardless, we are extremely impressed with this product. We will implement wideopen.group at every desktop very soon. We will also install wideopen.call on several machines and leave it up to the users to decide which program they prefer.

Amanda@Work.Group

The Automatic Answer (tAA)
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Ph: 714-661-2660; Fx: 714-661-0998
E-Mail: sales@taa.com
Web Site: www.taa.com

Amanda@Work.Group, the Automatic Answer's entry-level product for peer-to-peer messaging environments, is a user-friendly and feature-rich voice and fax messaging system. (Amanda stands for Automated Messaging and Answering.) It allows you to perform call control from a PC. Instead of a phone, you use simple, Windows-based menus and commands to answer calls, perform conferencing, put calls on hold, accomplish transfers, and access other call control features.

Version 6.01 (revision A) of Amanda@Work.Group expands upon tAA's Amanda@Work through its LAN

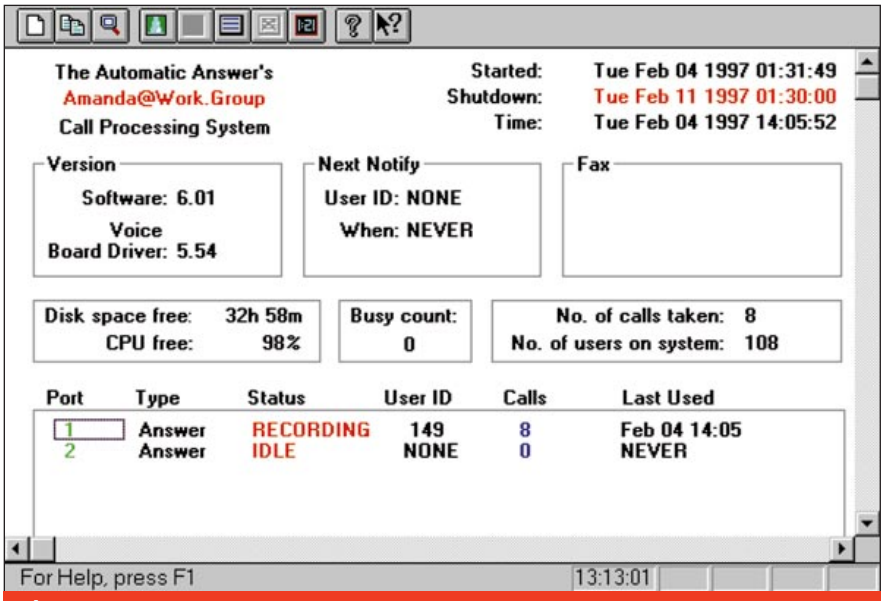

Figure 15. Amanda@Work.Group: Administration screen.

access to clients, giving you CTI capabilities. So, if you add Amanda@Work.Group to a network server, client PCs will be able to display and play phone messages, either through a phone handset or over speakers on a multimedia PC.

Amanda can be configured as your primary attendant to answer all incoming calls, to direct calls, and to take voice mail if an agent is unavailable. Amanda can also be configured as a secondary attendant, an off-duty attendant (24 hour access to messages for employees), a voice messaging center, or a simple informational (audiotext) attendant. Amanda@Work.Group supports up to 24 ports. The Windows NT version, called Amanda@Large.NT, will handle many ports for large corporations.

INSTALLATION

The Amanda server we used to test drive Amanda@Work.Group was shipped to us by tAA with the server software fully installed. We basically had one of their turnkey systems. Thus, we didn't have to install any software on the server. On the client side, we installed two disks, an "Administrative Clients" disk and a "User Clients" disk.

The installation of the client software was very straightforward. Basically, all we had to do was indicate which folder we wanted to copy the files to. We did encounter difficulty, however, when we tried to access the Amanda server. In fact, this problem is what accounts for the product's 4.25 installation rating. (For all the details, see the Operational Testing section of this review.)

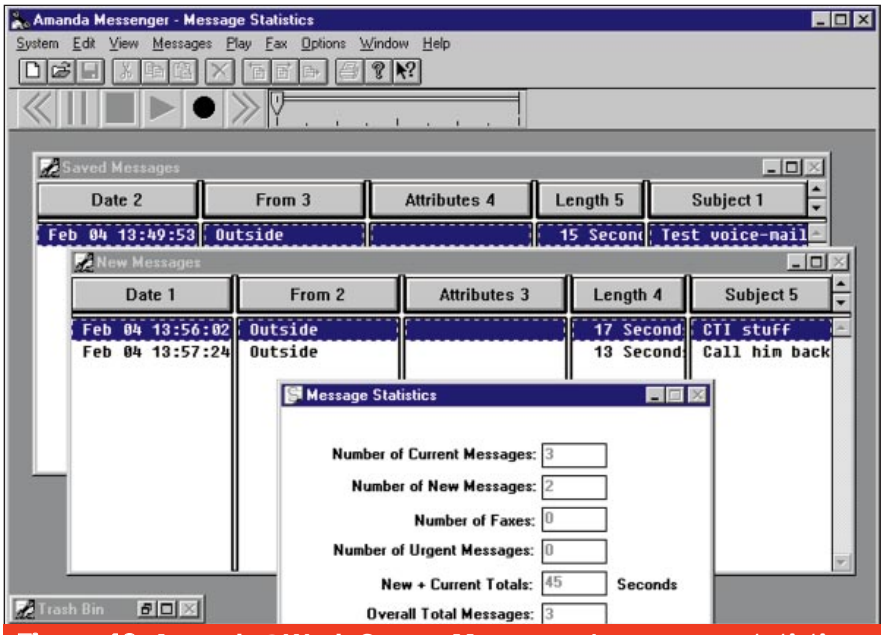

Figure 16. Amanda@Work.Group: Messenger's message statistics.

DOCUMENTATION

The documentation was excellent. It included a thorough index table, lots of screenshots, detailed explanations of each function, and a glossary. Also, the manuals included diagrams that explained conceptually how the Amanda system works, which was a nice touch.

The online help had lots of information, but we sometimes had difficulty finding what we needed. To review the available topics, which were listed one-by-one on various menu screens, we found ourselves doing a lot of scrolling. Also, many of the menu screens had several features and options. When we clicked on Help in these menu screens, we were confronted with help screens that presented tons of information.

We'd like to suggest that tAA introduce help screens that have screenshots in them. (This sort of help is already available with several software packages.) Then, you could access information on a given feature by clicking on the appropriate area within a screenshot. Regardless, the documentation was impressive overall, and we gave it a rating of 4.90.

COMPONENTS

• ***Amanda Administrator:*** This program allows you to monitor CPU idle time, busy counts, number of calls taken, startup and shutdown times, current status of lines, etc.

• ***Amanda Messenger:*** With this program, you can play your voice messages as well as display or print your personal faxes. In addition, you can configure up to ten notifications for messages. Such notifications include call you at a certain number, page you, etc. You can set multiple notifications as well as determine when certain notification methods will be in effect. For example, you can schedule your pager

to only work on weekdays, 24 hours a day, between 9:00 am and 5:00 pm, etc.

• ***Amanda Dialer:*** This program lets you dial a number that is located in another application. Basically, you just select the phone number with your mouse, click on the Amanda Phone Dialer icon (which always appears on top of other windows), and right-click on the selected phone number. These actions trigger the appearance of a dialog box that allows you to dial the selected number. (A nice feature, but copy/paste would work just as well.)

• ***Amanda Monitor:*** This program indicates the status of each port on the system, as well as the activity at each port. (This program's interface is shown in Figure 15.)

FEATURES

Amanda offers an impressive array of customization capabilities, many of which are described below. In addition, Amanda has a pretty decent and user-friendly GUI. The main GUI screen, which handles calls, e-mails, voice mails, faxes, etc., is shown in Figure 16.

• ***Amanda And The TUI:*** Amanda Messenger and the TUI (telephone user interface) have nearly identical features. With Amanda Messenger, you use the mouse; with the TUI, you use the touch-tone keypad. The features these interfaces share include the following:

Continuous Play/Delete: A user may request continuous playback of all messages. Also, the user may opt to continuously delete all messages once playback has ended.

Date And Time Stamp: Every message can give the date and time it was recorded. It can be configured per mailbox and played back automatically or, at the user's request, per message.

Forward/Copy: After hearing a message, the user can forward a copy of it to another user. A message prefix can also be recorded and sent with the message.

Future Delivery: After a message has been recorded, Amanda can be told when to deliver it to the user. Delivery times can be set in minutes, hours, days, months, or years.

Guest IDs: Users may create mailboxes (if configured in system) for guests, providing private communica-

Minimum System Requirements

- Dedicated PC
- Intel 486SX or faster processor
- 4 MB RAM
- 170 MB or larger hard disk drive (maximum access time should be no greater than 14 ms.)
- VGA video
- 3.5" floppy disk drive
- Voice boards: Rhetorex RDSP2132, Rhetorex RDSP4132
- Optional: Class 2 fax modem

HAM-MER 4/C

tions between the user and the guest.

Lists: Each user can build seven private lists to allow them to forward existing or new messages to many users at one time. Lists may also be built on-the-fly.

Message Notification: Amanda can notify a user many ways (by turning on a message waiting light, by calling a digital pager, etc.) The number Amanda notifies can also be changed.

Multiple User Greetings: Each user can record seven different greetings. These greetings may be changed by the user at any time or can be scheduled to change automatically by time of day and day of week.

Playback Control: While listening to a message, you can fast forward or rewind it in five-second increments.

Private Messages: Messages can be recorded for a user such that only he/she may hear them. They cannot be forwarded to another user/box accidentally.

Receipt Verification: When sending a message to a user, or list of users, the sender can request that Amanda send back a message verifying the message was received.

Retrieval Control On The TUI: After selecting 1 to play your messages, you may play your oldest messages first or your newest messages first by pressing 1 or 4 on the phone keypad, respectively.

Safe Message Purge: You can program Amanda to delete old messages and to issue a warning before doing so. You can listen to old messages before they are purged, or you can re-save them.

Un-Delete Messages: You can retrieve accidentally erased messages.

Urgent Messages: A message can be recorded for a user with a priority header, which will make it the first message the user hears.

Volume Control: You can increase or decrease the playback volume of a message.

• ***Automated Attendant Features:***

Automatic Scheduler: The system administrator can schedule which greetings to play and which extension to ring. Also, you can change the "do not disturb" or call screening attributes that will be in effect at different times, days, and dates.

Audiotext: Information-only mailboxes can be set up to provide callers with answers to frequently asked questions.

Busy Greetings: You may record a custom greeting to let your callers know you are on the phone. Also, you can provide callers with various options along with this greeting.

Call Queuing: Amanda gives the caller an option to hold after reaching a busy extension. Callers holding for the extension are then transferred in order from the queue.

Call Screening: When enabled, this feature will request the name and company of your caller before transferring the call to you. If you answer, you may accept or forward the call or have Amanda take a message.

Chaining: The three types of chaining include: Done, Ring No Answer, and Busy. After processing a call, Amanda can chain the caller to another user or box.

Do Not Disturb: When enabled, this feature will make sure calls are not transferred to your extension. Callers immediately hear your greeting, and Amanda takes their messages.

Foreign Language Prompts: Amanda can speak to your callers in any number of languages you choose.

Group Partitions: You may define which boxes, callers, and users can access Amanda. This prevents accidental access to confidential information.

Greeting Bypass: By pressing the # sign twice, a caller can bypass your greeting and begin recording his/her message.

Greeting Restart: After Amanda processes a call (takes a message, plays audiotext, or checks messages), a user can chain back to the main system greeting for further system access.

Port Selectable Greetings: Amanda may answer with different greetings on a per-port basis. This feature allows you to have more than one company on a single machine.

Single-Digit Menus: With this feature, callers can enter a single digit to route themselves through the system. Basically, this feature makes Amanda an easy-to-use call processor.

Universal Ports: You may use one or more of Amanda's ports to answer calls as well as perform message notification tasks.

Voice Forms: Amanda can ask callers a series of up to 20 questions, take a message for each, and store them for playback as one continuous message.

• ***Enhanced Features:***

Automatic Maintenance: Amanda automatically checks disk usage, time drift, voice processing boards, and sys-

Electronic Set Emulation

tAA's product development emphasizes electronic set emulation, advanced system integration, text-to-speech, speech recognition, upward compatibility, and enterprisewide messaging solutions. Electronic set emulation, in particular, differentiates tAA's Amanda from the kinds of products offered by telephone equipment manufactures. Historically, these manufacturers devised proprietary architectures to discourage the use of telephone sets or voice processing systems offered by competing companies.

In most instances, a competitor must connect its system to the host telephone system via an analog telephone interface. This analog telephone port is often an expensive alternative that makes the competitor's offering less attractive when compared to the digital integration offered by the proprietary telephone equipment manufacturer.

Electronic set emulation is a technology that seamlessly integrates tAA's voice processing systems with selected manufacturer's host telephone equipment. The integration is accomplished such that tAA's Amanda voice processing functions appear as if they were accessed directly from a host's own proprietary electronic telephone sets — regardless of manufacturer.

This technological innovation makes it possible for tAA to serve previously closed market segments dominated by companies like AT&T, Nortel, Rolm, and NEC. Electronic set emulation is a powerful strategy that will significantly contribute to tAA's plans for rapid growth. ■

tem functions on a regular basis.

Fax-On-Demand: With Amanda's Token Programming language, you can create unique fax-on-demand applications that allow callers to retrieve information stored on disk.

Fax Mail (Store-And-Forward): With the Token Programming language, Amanda can be configured to store faxed documents for individual users. They can then retrieve the fax(es), up to 20 at one time, from a remote location. This feature can be useful if you are on the road and need to check your messages.

Programmable Dial Strings: You may have specific dial actions programmed to access virtually limitless call handling actions.

Remote Access: Your system may be accessed remotely by your installer to make changes and system updates without visiting your site.

Reporting: You can request reports detailing information about calls processed, messages taken, and other parameters measured by Amanda.

T1, DID, And SMDI Support: Amanda@Work.Group can be installed and integrated with virtually any communications system.

OPERATIONAL TESTING

• ***Connecting To The Server:*** When we first ran the Amanda Administrator and entered the password, we received a "server unavailable" error message. We thought the network wire might be bad, but it checked out fine. To see whether the problem was the network connection, we installed NetBEUI on one of our Windows 95 test machines. (At present, the Amanda server runs only with the NetBEUI protocol. TCP/IP is in the works.)

We ran the command "net diag" on the Amanda server (which uses Workgroup for DOS to provide network connectivity) and on the Windows 95 client, and we determined that the two machines were able to see each other over the network. So now we knew the problem wasn't the network connection.

Next, we considered whether the Network Bindings were the source of the trouble. We thought the TCP/IP protocol might be interfering with the NetBEUI protocol. So, we went into the Network portion of the Control Panel and changed the properties of NetBEUI to make it the "default protocol." After rebooting, we still got the "server unavailable" error message, so we removed the TCP/IP protocol entirely. We still couldn't access the server.

We called Amanda's technical support, which that same day had a conference call with Microsoft about the very problem we were having. (Lucky for us, since we were running out of ideas. If we had called earlier, Amanda's technical support might have been as baffled as we were!) It turned out the source of our problem was a bug with Microsoft's "Dial-Up Adapter" in the Network Bindings.

It appears that the order in which you add the Dial-Up Adapter (in relation to the other network protocols) can have some strange consequences, such as the absence of certain kinds of network

functionality. It has something to do with the "binding" order in the Registry. The technician told us that if the Dial-Up Adapter was added first, it tries to make a dial-up connection to connect to a network, rather than using your local network. We didn't see any dial-up connection popping up, but we removed the Dial-Up Adapter as the technician suggested, and then everything worked perfectly. We logged into Amanda Administrator with no problems.

We couldn't blame tAA or the company's software for this complication, but we do hope that tAA will add this problem to a troubleshooting page in their documentation, a README.1ST file, or an addendum sheet entitled "READ ME NOW!"

[Note: tAA offers free support to its resellers and their registered end users. End users receive six months basic system administration support.]

• ***User-ID Mapping:*** Amanda's user-ID mapping resembles Expert System's EASE, an application generator that maps "labels" to certain actions. (Although the EASE labels perform functions different from those performed by Amanda's user IDs, the products are similar on a conceptual level.)

Basically, the user-ID is a record within Amanda's database. The user-ID is distinct from the user's extension, which is the number which must be dialed to transfer a call. Regardless, the user-ID and the user's extension are usually the same number.

Maintaining the distinction between the user-ID and the user's extension results in powerful functionality. Here's how: All of Amanda's user-IDs are stored in a single database, so no two users have the same number. For example, you have only one user-ID 0, which is usually the operator. To use 0 more than once, Amanda provides single-digit menus (IVR). When you define a single-digit menu, you map a user-ID to each menu item (1–9 and 0). Suppose you are currently in user-ID 100, and you press 0. If user-ID 100 maps 0 to user-ID 234 rather than the operator designated as 0, Amanda will send callers to user-ID 234. Thus, you can easily create menus and nested sub-menus, and re-use the same user-IDs.

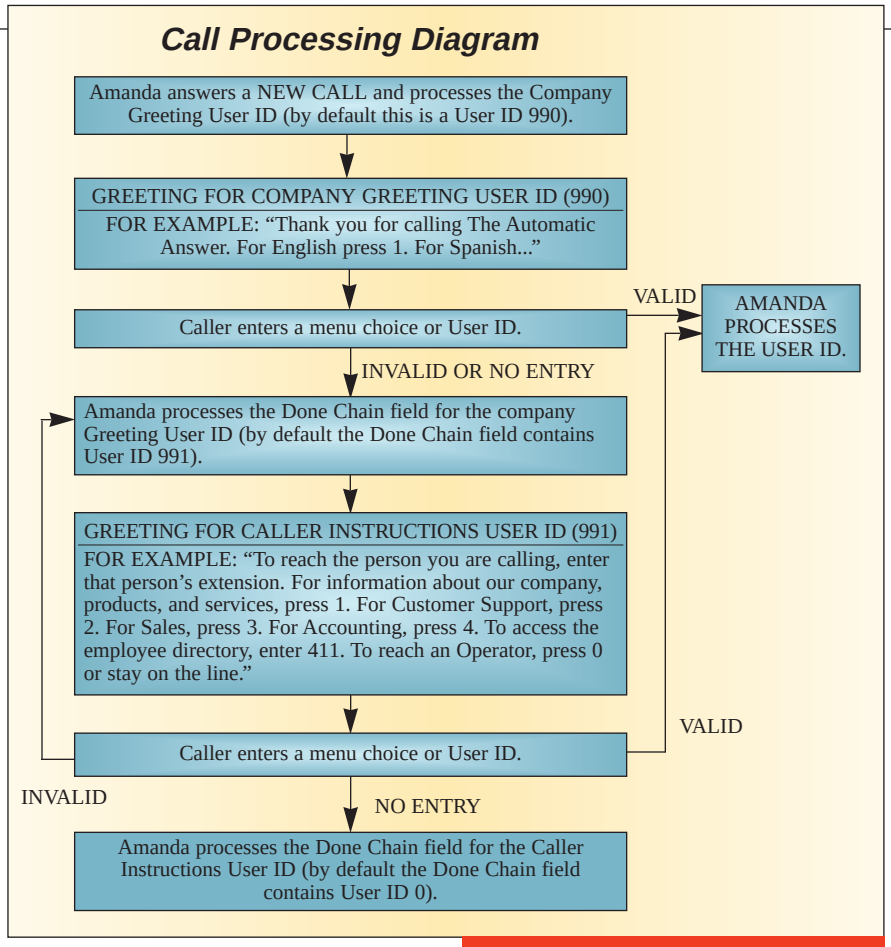

Figure 17. Amanda@Work.Group: Diagram of Amanda's call processing.

(If you're not confused yet, read on.)

If a digit is not mapped to a menu number, it treats the entered digit as a user-ID. For example, if a 0 is not mapped, and a caller enters 0, the caller will read user-ID 0, which usually is the operator. As another example, if you enter 234, and that user-ID is not mapped in that menu, then Amanda assumes it is a user-ID and transfers the call to that user-ID (assuming that number exists as a user-ID, otherwise it will return an error).

We like the way Amanda provides both call control and nested sub-menus via mapped user-IDs. This elegant solution makes the creation of IVR systems quick and easy. Also, depending on the fields associated with a particular user-ID, Amanda uses the contents of that user-ID's Extension Field, Done Chain Field, Busy Chain Field, or RNA (Ring No Answer) Chain Field to determine what to do next. (By default, user-ID 990 is the company greeting, but this can be changed.) To see the power and flow of Amanda's call processing through the use of user-IDs, see Figure 17.

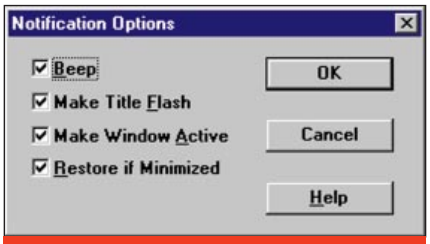

Figure 18. Amanda@Work.Group: Notification options.

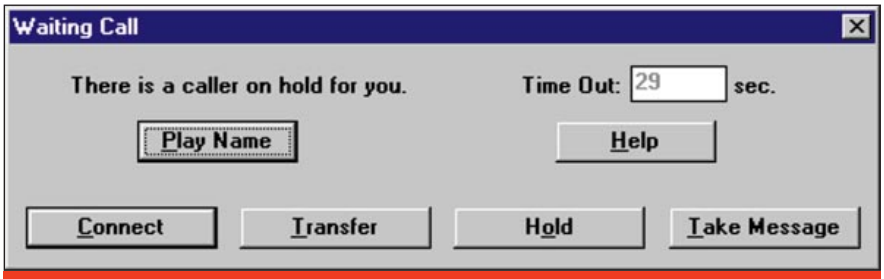

Figure 19. Amanda@Work.Group: Waiting call alert.

Figure 20. Amanda@Work.Group: Take message greeting.

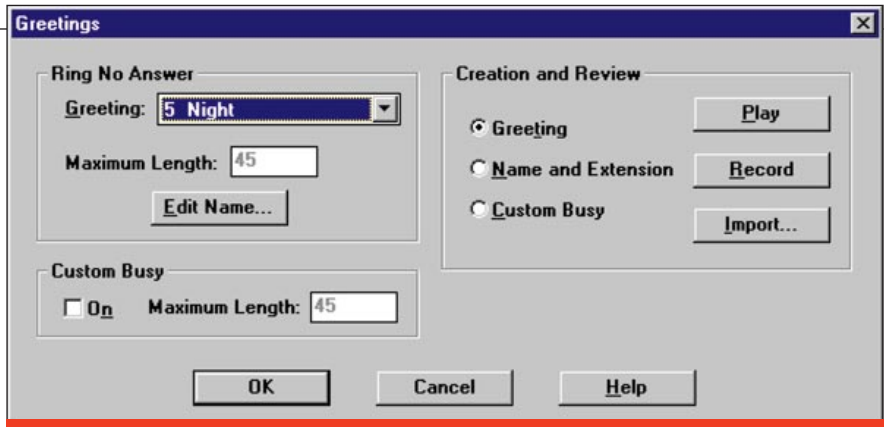

Figure 21. Amanda@Work.Group: Greetings.

• ***Call Screening:*** Amanda's call screening starts with the system prompting the caller to state his/her name and company. If the call is for you, Amanda notifies you at your desktop, using the call notification method of your choice (Figure 18). Notification methods include a flashing minimized icon, the playing of a WAV file, a pop up from Amanda Messenger, etc. Using the mouse, you can elect to listen to the recorded caller's name over your multimedia PC. Then, you can decide what to do with the caller (Figure 19). You can transfer the caller to your voice mail or your assistant, you can answer the caller, or you can play a special greeting (which we will explain in a moment).

With Amanda's call screening, you know what to do with callers before they can reach you. Since you have the advantage of knowing who is calling, you have time to look up the caller in your database or collect whatever notes you have on the caller.

But what about automated database lookups? At present, Amanda@Work.Group does not support caller ID and database lookups. However, the Windows NT version of Amanda, called Amanda@Large.NT, will have this feature built-in.

• ***Multiple Greetings:*** Amanda allows you to record up to seven different greetings. We particularly liked this feature (see Figure 20). Greetings may be changed by the user at any time or scheduled to change automatically by time of day and day of week. Thus, you could set up greetings such as "I'm at lunch…," "I'm almost done with this caller. Please hold…," "I have left for the day…," "I will be on vacation from June 1 to June 10…," etc.

Settings for greetings are easily modified in a user-friendly screen (Figure 21). You can also choose

Figure 22. Amanda@Work.Group: Workstation options.

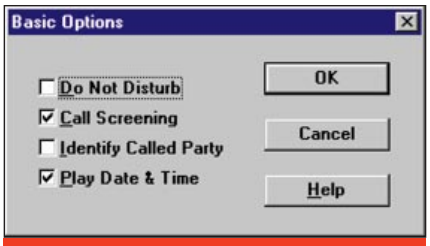

Figure 23. Amanda@Work.Group: Basic options.

which greeting to play when an incoming call comes in. Thus, if you are on the phone, and are almost done with the call, you can click a button to say to the other caller, "I'm on the phone, but I am almost through. Please hold and I will be right with you." Thus, you will never miss an important customer, and will avoid a game of phone tag.

There is no reason why everyone shouldn't have this capability at their desk. This call screening functionality, which can be delivered over a multi-media PC, can make use of a sound card or not, as well as the different notification options in the Workstation Options screen (Figure 22). To see how to access other important functionality, such as "do not disturb," "call screening," and "play date and time," refer to the screenshot in Figure 23.

The Waiting Call Configuration screen allows you to set hold greetings, take message greetings, as well as transfer greetings (Figure 24). In addition, you set up a personal transfer list from this screen.

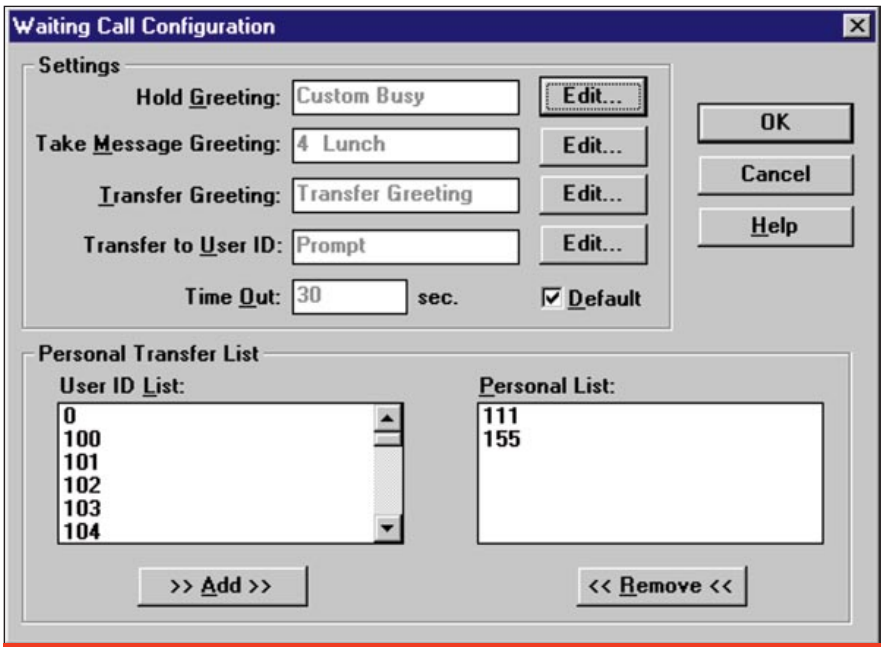

Figure 24. Amanda@Work.Group: Waiting call configuration.

ROOM FOR IMPROVEMENT

We'd like to see the Amanda Messenger integrated with Microsoft Exchange for storing faxes, e-mail messages, and voice mail messages. Thus, we look forward to seeing the NT version, which will be Exchange-compliant. A 32-bit version of the Amanda Messenger would also be a nice addition. Finally, as previously mentioned, Amanda's documentation should include a sheet or addendum warning that Microsoft's Dial-Up Adapter can cause problems with the NetBEUI protocol.

CONCLUSION

tAA's Amanda@Work.Group can be summed up in one word — customizable. Amanda is easy to configure and set up. Options can be changed, menus can be customized, and user preferences can be modified very quickly. Setting up and configuring the auto-attendant system is also a no-brainer (making this possible is a feat in itself). We really liked the Amanda Messenger program, especially the call screening feature. Having multiple greetings, which can be scheduled automatically or played manually, was also a plus.

RATINGS (1-5)

Installation: 4.25
Documentation: 4.90
Features: 4.92
GUI: 4.5

FaxLab

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Genoa Technology, known for its printer testing software, has a product called FaxLab, which tests interoperability between a new faxing product (fax board, fax machine, etc.) and currently existing fax machines. FaxLab's database contains information on every fax machine that it has been tested with, and the product emulates the characteristics of each of these fax machines. These attributes allow you to test any new fax product against all existing fax products in the FaxLab database through software emulation.

No longer will you have to maintain a list of 50 to 100 phone numbers of different fax machines. New faxing products are continually added to FaxLab's database, ensuring future fax products will be available to their fax-testing suite.

The problem with fax machines is that they are so various. Sure, there are standards, but in the real world, not all fax machines adhere to these standards in all situations. An example would be placing an international call over a satellite. Satellite transmission incurs a delay (latency) of about 700 ms. If you follow fax standards in your fax machine, your fax machine would choke at this 700-ms delay. Thus, manufacturers often make proprietary fixes to compensate for transmission delays. This is precisely where fax interoperability can break down. Just because your fax machine works with one other unit, doesn't necessarily mean your machine will work with any others. Enter Genoa Technology's FaxLab.

INSTALLATION

We installed Genoa's board, leaving the default interrupt at 5 and the memory address at 220h. Next, we installed the two disks from within a DOS box in Windows 95, although Genoa recommends that you run the program in DOS mode.

The hardest part of the installation was waiting for the database files to be created, which took three to five minutes. Incredibly, the board does not require a driver to be added to your config.sys or autoexec.bat. Access to the board is enabled through the software. We certainly had no complaints about that!

Overall, installation was straightforward and hassle-free. We gave it a 4.90 rating.

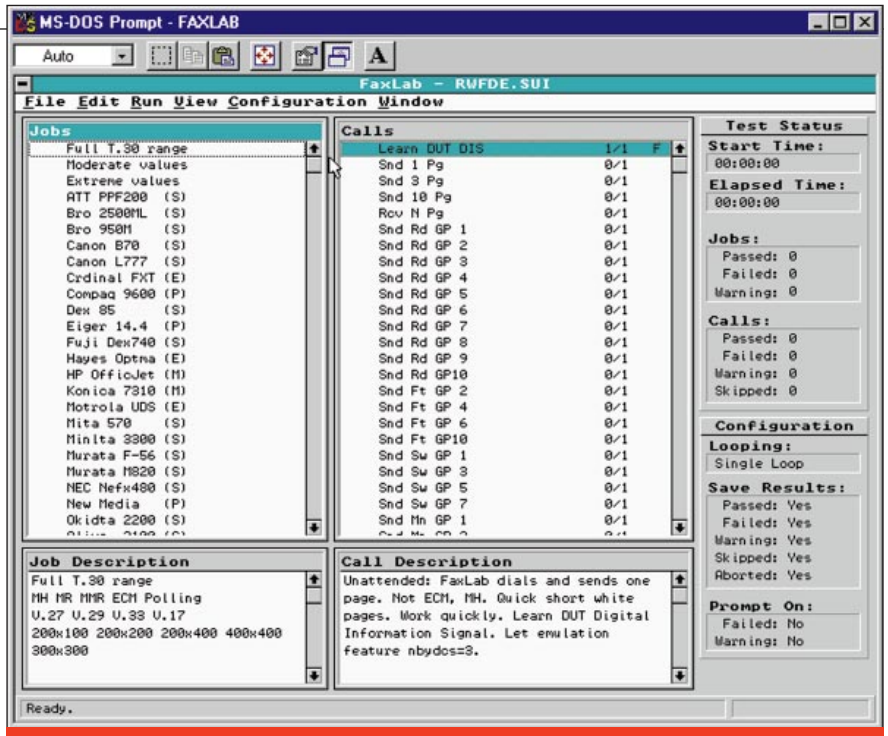


Figure 25. FaxLab: Main screen for defining jobs and other features.

DOCUMENTATION

The table of contents is excellent and full of detail; however, there is no index. All of the error codes and descriptions are contained in the appendices. A listing of popular fax machines (such as Brother, Ricoh, Motorola, Canon, AT&T, Fujitsu), including their emulation descriptions, is contained in the documentation. Installation instructions are clear, as is the explanation of how to profile a fax machine or set up different test suites. Screenshots abound throughout most of the manuals. Overall, we gave the documentation a 4.80 rating.

FEATURES

- The program was written in C++ and features an intuitive graphical user interface (Figure 25).
- The product measures and records up to 500 distinct call parameters, such as the existence and order of T.30 signals, signal levels, duration of inter-signal silent periods, the number of leading and trailing sync flags, and the composition of FIF data bytes.
- FaxLab repeatedly records many call parameters for variations in data modulation, data rate, image encoding, and resolution.
- For each parameter, FaxLab stores minimum and maximum values, mean and standard deviation, and up to 99 sample values.
- Each device being profiled is sent illegal T.30 conditions to determine reaction to such input.
- FaxLab can act as a sender and receiver of facsimile calls.

OPERATIONAL TESTING

We ran the FaxLab software with several call iterations, and it seemed to work according to specifications. Our only problem was getting it to run under a Windows 95 DOS box, which Genoa Technology doesn't recommend. Well, we tried anyway, and it

System Requirements

- Processor: 486-33
- RAM: 12 MB
- Free hard disk space: 80 MB
- Operating system: Can run under DOS 5.0 or later, Windows 95 (DOS mode preferred), or Windows NT (protected DOS mode)

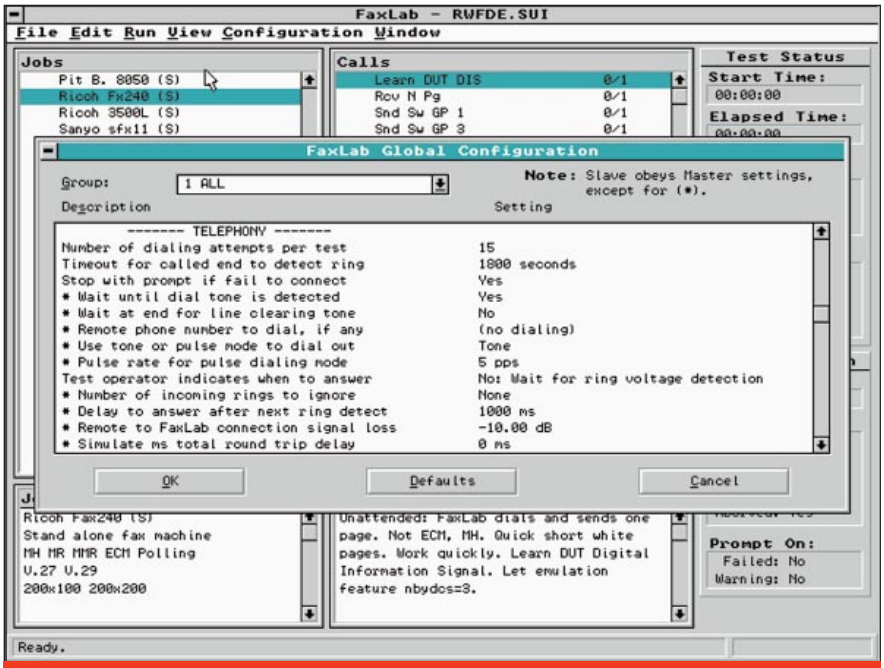


Figure 26. FaxLab: Configuration screen for setting global configuration parameters.

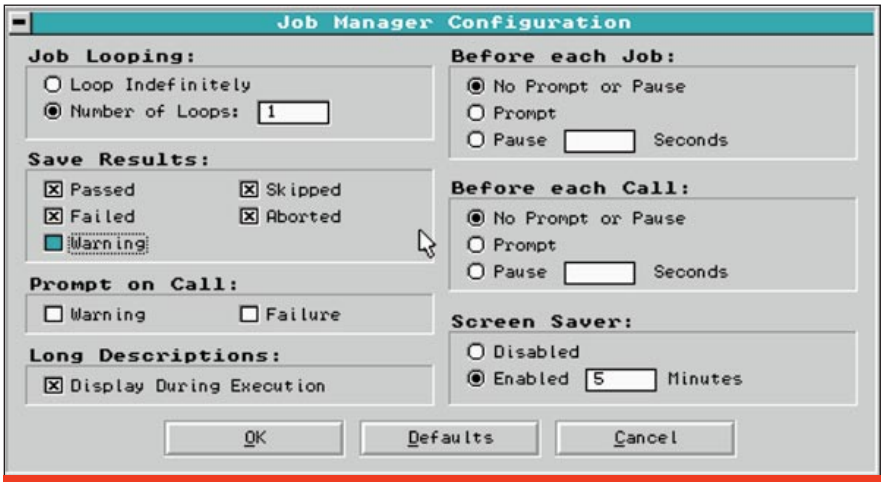


Figure 27. FaxLab: Job Manager Configuration screen.

doesn't work, no matter how hard we tried to optimize the PIF settings.

We were able to modify the global configuration parameters to test variations in the testing procedures. The global configuration screen was very user-friendly. The current settings are shown in Figure 26, although many settings and parameters are scrolled off the current window. Setting the job manager settings was also simple (Figure 27).

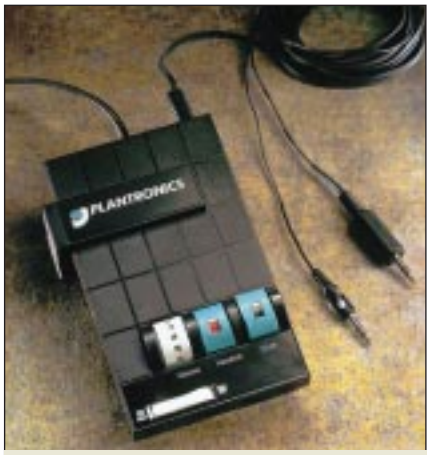
CONCLUSION

Genoa Technology is well known for its testing tools, particularly printer testing tools. FaxLab is a fine addition to Genoa's testing arsenal.

Fax product manufacturers would be wise to use Genoa Technology's FaxLab before bringing any new fax products to market. The FaxLab product can help prevent extra manufacturing costs, recalls, faulty equipment, etc.

RATINGS (1-5)

Installation: 4.90
Documentation: 4.80
Features: 4.95
GUI: 4.25



Headset Switcher Adapter

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Plantronics has released a new headset product that allows you to use one headset for both your phone and your computer. The product, which lists at $150, is called the Headset Switcher Adapter, also known as the CAT (Computer Audio Telephony) Switcher, model number CATM10.

With a simple push of a button, you can switch quickly between listening to music on your multimedia PC and answering an incoming call. Other uses include being able to switch easily from a regular telephone conversation to a computer audio function (such as Internet telephony, personal conferencing, speech recognition, computer telephony, training, and Web-based sound or music) or to a CD player without having to switch headsets.

INSTALLATION

The installation was simple. You hook up your handset to one of the ports on the Switcher, which is clearly marked with a phone icon. You take another connector, which is attached to the Switcher, and draw the wire to your sound card. This wire splits into two connectors labeled "Mic" (microphone) and "Phones" (headphones), which makes it very easy to plug them

into the appropriate jacks on the testing PC's sound card.

After you connect the wires, the next step is to set the six-position switch. A label on the Switcher told us to look in the manual to find the appropriate setting for our phone hardware. We didn't see our particular manufacturer in the manual, but we played with the position setting and got it to work fairly quickly. Finally, we inserted the batteries (optional in many cases). We were able to get everything working in about two minutes.

We would have liked to have seen more PBX vendors in the documentation with the appropriate position settings, but relying on trial-and-error presented no great difficulties. Overall, we gave the Switcher installation a 4.95 rating.

FEATURES

- Works with any Plantronics H-Series headset top with a Quick Disconnect Module.
- Controls for headset/handset selection, volume, and mute in telephone mode.
- Telephone/computer (audio) selector switch.
- Eight-foot patch cord with two 3.5-mm plugs for connecting to computer/audio source.
- Compatible with virtually any desktop telephone and most audio devices with 3.5-mm ports for microphone and headset connection.

Overall rating for features and functionality: 4.0.

OPERATIONAL TESTING

We had one person put on a headset and listen to music. We called into the extension where that person was sitting, and he pressed one button to switch to computer mode, and another button to answer the call. The sound quality was excellent, even though this particular Switcher version does not support stereo. (A future version will have stereo sound.) The unit itself consists of four main switches or buttons (five if you include the position switch, which needs to be set only once), making this product very easy to install and use.

ROOM FOR IMPROVEMENT

We'd like to have music piped into a phone conversation. We'd suggest including another button that would combine the computer and phone channels so users could hear a PC's sound output and a caller at the same time. Such a feature would enable you to play music to a caller and talk at the same time.

RATINGS (1-5)

Installation: 4.95
Documentation: 3.90
Features: 4.0

We imagine simultaneous sound output and voice would be useful in a call center setting. If the agents were marketing CDs, seminar tapes, etc., they could talk to the caller and play a good-quality version of a product they were trying to sell, and they could do so with a click of the mouse button.

Such functionality would demand a separate control for the computer's volume. You can change the computer volume using the software volume control, but it would be quicker to use a manual volume dial on the Switcher. Unfortunately, the Switcher does not have a separate volume control for the computer's sound output. In fact, the volume control on the Switcher has absolutely no effect on the computer's output volume, which surprised us a bit. We think the volume control should also work with the computer's output, not just the headset's. This may be due to some technical issues, such as quality of sound, or the signal output from the computer may be too high for the Switcher to handle.

Nonetheless, if it's technically possible, we'd like to see the existing volume control work with the computer output, or even better, have a separate volume control on the Switcher. This would allow you to play music in the background at a low volume when talking on the phone. Of course, the person you are speaking to will also hear this music, so this feature would have to be used judiciously.

Not only could you play CDs to your friends or possible customers, but you could also "combine channels" to create a personalized on-hold greeting. (You would have to make sure the PC's CD-ROM is playing music at the time, or the caller will hear silence.) You could also record and play your own .WAV files.

To take our "combine channels" idea a step further, you could use it to play any of your voice mail messages to the caller. This would work if you employ some sort of unified messaging solution. Just double-click on the voice mail message in your Exchange/GroupWise/CC: Mail mailbox and play the sound file to the caller. You could play your voice mail message and talk to the caller at the same time.

Another button which doesn't work with the computer output is the mute button. Just like the volume control, it works only with the headset. Thus, if you are performing Internet telephony and you press the mute button, the person you are speaking to over the Internet will still be able to hear you.

Also, since the mute button only mutes the microphone, we'd like to see another mute button applied to the headphones. This would be useful if you wanted to temporarily and quickly mute any music. It would be especially necessary if a co-worker arrived at your desk and immediately started talking to you, unaware that you have music playing on headset.

CONCLUSION

We really liked Plantronic's innovation. Having a combined headset for functionality across two different mediums was a great idea. The Headset Switcher does exactly what Plantronics claims its does. It allows you to listen to your computer's CD-ROM, sound card output, and the phone.

This product is great for computer telephony, especially for recording voice prompts. You can do all your recording and answer incoming calls very easily. Using a headset to listen to your computer's multimedia features is also important for another reason — privacy. You don't want to use your computer's speakers to play a unified messaging voice mail. Using a headset instead of computer speakers is also less disruptive to your co-workers. Many people are currently using two headsets — one for the phone and one for the computer. If you are one of these people, then Plantronics' Headset Switcher Adapter is perfect for you. ■