Test Drive

RightFAX
Enterprise 5.0

RightFAX

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Price: RightFAX Enterprise v5.0 is $2,995, for a server license and two channels. RightFAX 5.0 starts at $1,495 for one line. Both products cost $795 per additional line. There are no user license fees.

Based on the success of their RightFAX NT family of fax servers, RightFax has released a LAN-based faxing solution called RightFAX Enterprise v5.0. The company also offers RightFAX v5.0 (a subset of the enterprise version, which lacks the least-cost routing and load-balancing features of that version). RightFax also offers several optional modules (at an additional cost), each of which adds additional functionality. These include a Postscript module, an E-Mail Gateway module, a Web Client module, and an Optical Character Recognition (OCR) module.

Postscript Module

The Postscript module allows you to attach Adobe Acrobat (.PDF) documents, which are then automatically converted on the server. With the popularity of the Adobe Acrobat file format, this is a welcome addition.

E-Mail Gateway Module

The RightFAX E-Mail Gateway module allows RightFAX to integrate with your existing e-mail applications. The gateway allows you to send, receive, and track the status of faxes through your standard e-mail interface. The E-Mail Gateway supports Lotus cc:Mail, Lotus Notes, Novell GroupWise, Microsoft Mail, Microsoft Exchange, and SMTP/POP3.

E-Mail Gateway features include:

- E-mail messages notify users of received faxes and (optionally) completed transmissions.
- Incoming faxes can be routed as e-mail messages to any network user and/or printed to a network printer.
- Comes with a Windows fax viewer.
- Does not require Microsoft MTA program or Lotus cc:Mail gateway to be running for mail to be delivered.
- Microsoft Fax Driver allows output from any Windows application to MS Mail.
- Custom print driver allows output from any Windows application to cc:Mail.
- Receive OCR output in mail with optional RightFAX OCR Module
- Inbound faxes may be routed directly to SMTP addresses, via Internet or Intranet mail, reducing long-distance line charges.
- The RightFAX E-Mail Gateway also allows POP3 clients to send outbound faxes.
- In addition to cover sheet information, fax mail messages can contain attachments over 45 of the most common Windows and Macintosh formats, including Word, Excel, JPEG, GIF, and HTML, to name a few.

OCR Module

The RightFAX OCR module adds another routing method to your RightFAX fax server software, in addition to converting images into text. The RightFax OCR module resides on the server (not on every client machine). This allows every user on the network to continue working, while the server does all the processing work.

OCR features include:

- Only one license for unlimited users.
- 32-bit application for fast conversion and routing.
- Converted text can be viewed and annotated (searched, cut, pasted, etc.).
- Automatically convert every fax received or on an individual basis.
- Routing character-string is not restricted to a specific position in document.
- Administrator controls OCR privileges.

RATINGS (1-5)

Installation: 4.90
Documentation: 4.75
GUI: 4.85
Features: 4.95
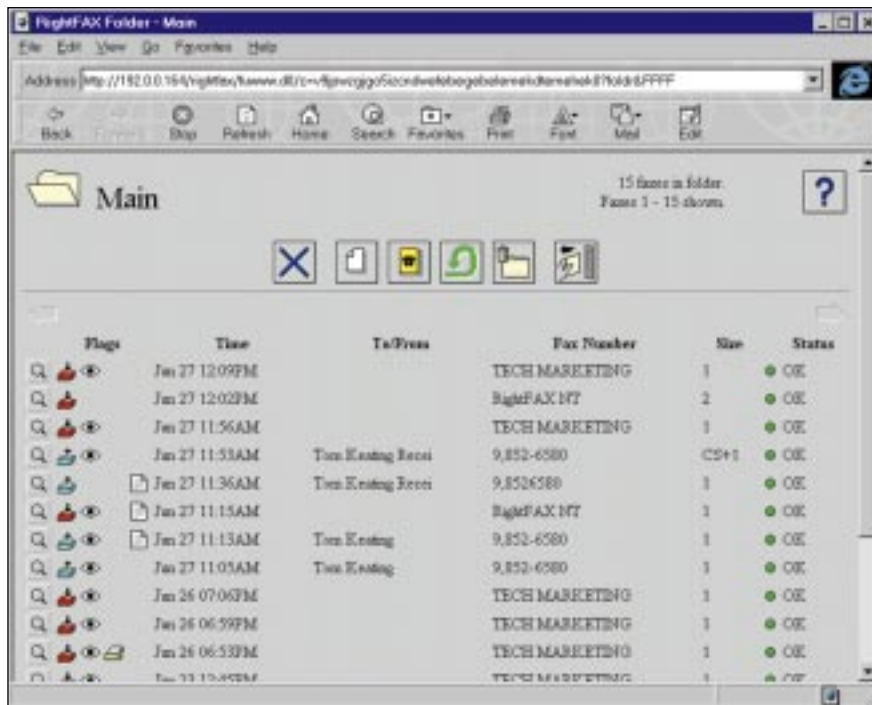
Web Client Module

The RightFAX Web Client module allows you to manage your fax mailbox using a Web browser. Simply enter the Web address of your fax server and log in to access all of your sent and received faxes from anywhere via the GUI (Figure 1). The module also enables an administrator — through an administration utility — to connect unlimited users or restrict the number of clients connected concurrently.

Web Client features include:

- Send, receive, forward, route, delete, and print faxes.
- Create notes on fax cover sheets.
- Attach files to faxes using PCL-5, PostScript, TIFF-G3, DCX, PCX, ASCII/Text formats (requires uploading capability currently available only on Netscape browsers).
- Run over Secure Socket Layer (SSL v2 and v3) on server for security.
- Access Phonebooks, Billing Codes, Library Documents, and Fax Histories.

Least-Cost Routing

One of RightFAX's best features is its LCR (least-cost routing) ability, which sends faxes via the Internet or data network to a phone line that is closer to the fax's destination, thus reducing phone bills. For instance, suppose you need to fax something from New York to Tokyo. If you have a network (Internet or private WAN) connecting the two locations, you can route the fax from the RightFax server in New York to one in Tokyo. The Tokyo server can then fax the last leg of the fax transmission to

Figure 1. RightFAX: The Web Client Module GUI allows you to manage your fax mailbox from anywhere in the world.

the desired destination as a local call.

The hardest part of using the LCR method is maintaining accurate routing tables. The least-cost routing system weighs several factors when deciding how to route faxes. These include time of day, user or group restrictions, priority, and server availability. With RightFax's load balancing (capacity sharing) capability, the RightFax server can share its queue of outbound faxes with another RightFax server in the enterprise, which will speed up the transmission process. Load balancing also works for incoming traffic to even out the volume of incoming faxes across two or more servers.

Besides least-cost routing, other routing methods include direct inward

dialing, dual-tone multi-frequency (DTMF), voice-assisted DTMF, dialed number identification service (DNIS), DNIS/DID interface, caller subscriber identification, ISDN, OCR, and manual line/channel. These routing methods can also be combined.
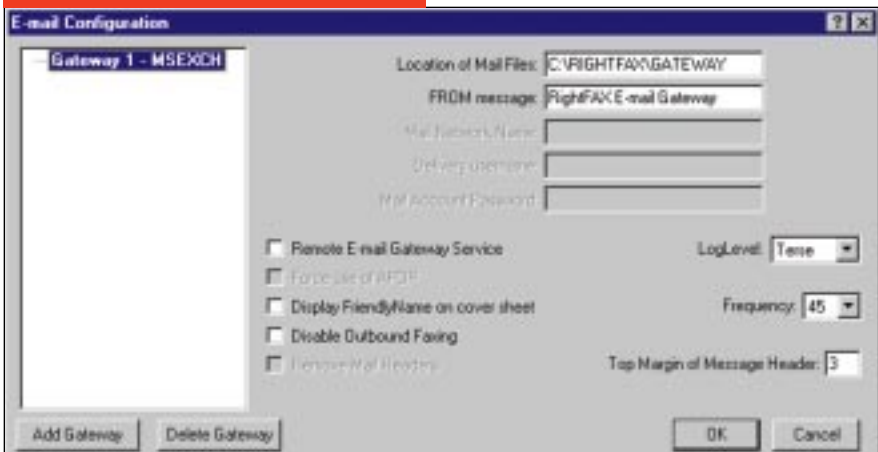
INSTALLATION

Installation of the RightFAX Enterprise 5.0 software entailed installing the software from a CD-ROM and then adding the optional modules. The optional modules come on 3.5-inch diskettes. The installation of the RightFAX server software, OCR module, postscript module, and Web client module all went smoothly, but we did have a bit of trouble with the e-mail module.

A Slight Hitch

At first, we chose MSMail rather than Exchange for our default gateway. That same week, we upgraded our mail system from MSMail to Exchange, so we decided to reinstall the RightFAX E-Mail Gateway (Figure 2). When we tried reinstalling, RightFAX kept putting Lotus Notes as our e-mail gateway, which seemed strange. As it turned out, we had a license for but one e-mail gate-

Figure 2. RightFAX: The E-Mail Gateway configuration screen.

way. And apparently, reinstalling doesn't remove the original gateway, which causes strange side effects. Even manually removing the gateway from the administration program and then reinstalling again didn't work — the program kept putting Lotus Notes back as the e-mail gateway.
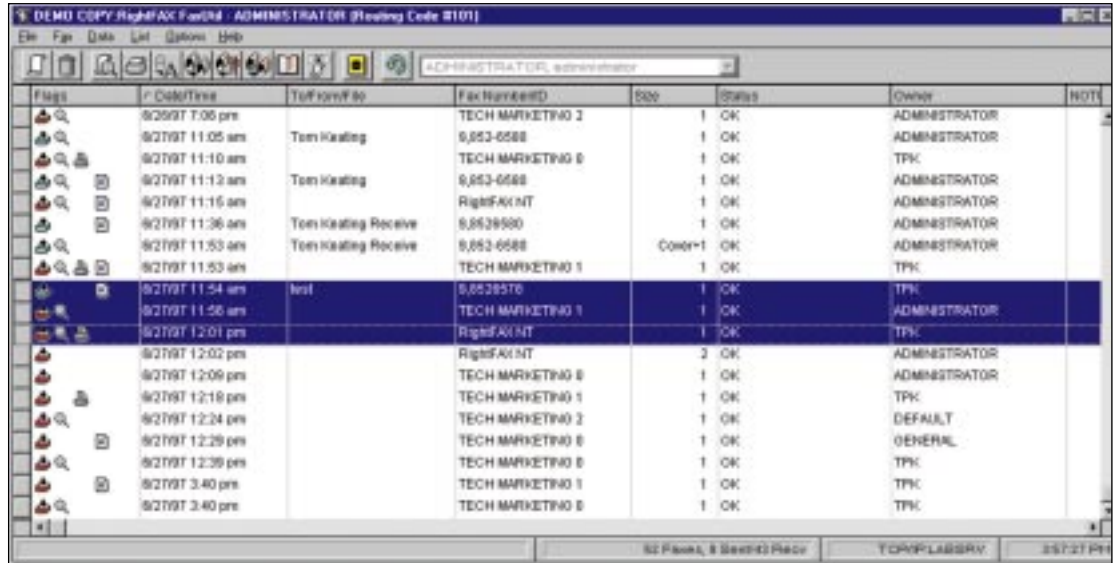
We called technical support, and they had us dive into the Windows NT registry to manually remove the original gateway. We removed all the e-mail gateway entries in the registry, reinstalled the e-mail gateway, and chose Exchange. Once we did this, everything worked fine. Other than this one glitch, all the other installation procedures went very smoothly. Considering the complexity of all the features and modules which we installed, we were surprised we didn't have more problems. Client installations were also a breeze. Overall, we were very happy with the ease of installation and gave RightFAX a 4.90 installation rating.

DOCUMENTATION

The documentation was pretty good; however, it seemed that parts of the documentation were a bit sketchy or not located where we expected them to

be. For instance, when we tried to add a printer to the RightFax queue, we referenced the administrator manual, but the instructions weren't there. Checking the index of the user's guide, we found the correct page. Basically, we had to figure out what the network name and the queue name values were. We weren't certain of the syntax RightFax was looking for, which is the reason we checked the manuals. The example in the manual could have explained the parameters more clearly. We took an educated guess as to the correct parameters, and this worked.

The documentation did contain plenty of screenshots, and it provided several examples. Both the administrator guide and the user's guide had good indexes, as did the optional E-Mail Gateway guide. All of the guides — user's guide; administration guide; E-Mail Gateway guide; and Web Client guide — were excellent. Some minor details were missing (nothing to get excited about), and we felt the online help could have been more complete. Nonetheless, we gave the documentation a 4.75 rating.

OPERATIONAL TESTING

We found RightFAX's main screen for viewing, editing, and sending faxes to be user-friendly. Different icons indicated whether a fax had been viewed, printed, or OCR'ed, and the column headings included date/time, fax number/ID, status, number of pages, and other vital information. RightFAX allows you to select multiple faxes for deletion, forwarding, or other operation (Figure 3). From the main GUI, you can also switch to administrator mode for viewing all faxes for all users, provided you have been assigned the appropriate security permissions. A nice feature of this product is that you can log on to your personal RightFAX mailbox from any computer workstation on the network, since RightFAX is client/server.
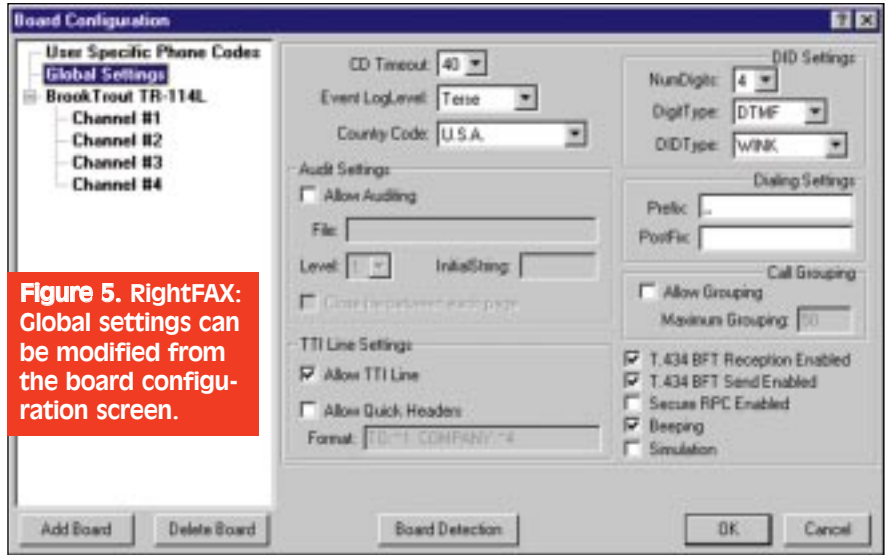
Setting up the RightFAX server was easy, and consisted of a few programs in the Control Panel. From one centralized screen, you can enable CSID routing, enable logging, turn on billing codes, set the notification time, increase the number of authorized channels, and set up other server features (Figure 4). Another program allows you to easily modify the
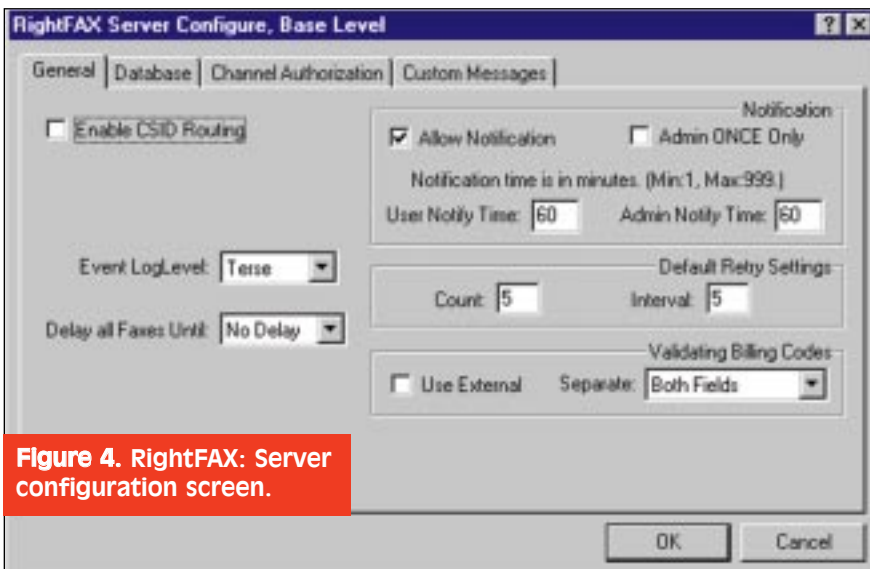
Figure 4. RightFAX: Server configuration screen.

global settings for the fax hardware, including enabling T.434 BFT (binary file transfer), setting the DID type, selecting the country code, and other settings (Figure 5). Figure 6 shows another useful configuration screen. This GUI allows you to set whether a particular channel (line) has the capability for outbound, inbound, or both. You can also disable a line, enable DTMF routing, and enable ECM from this screen.
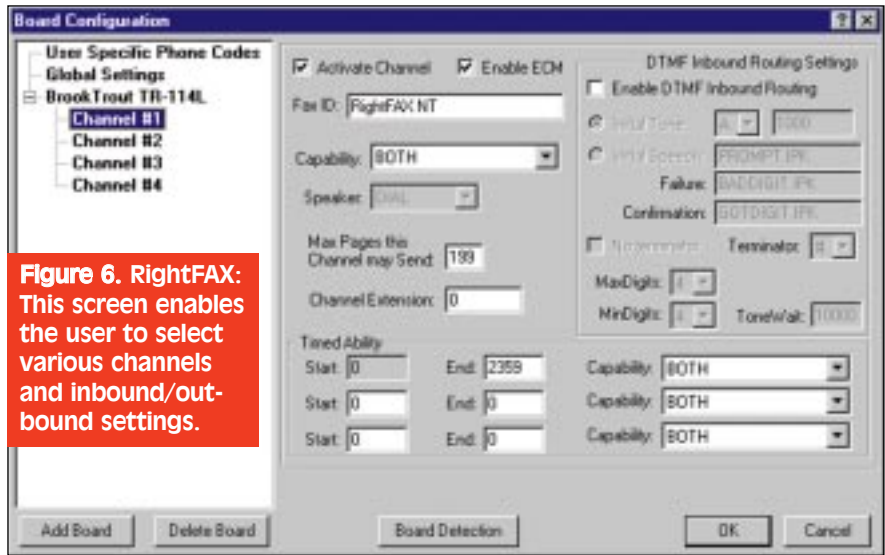
On the client side, you have several options available with regards to receiving faxes. For instance, you can automatically forward received faxes to another fax number if you are traveling, or even forward it to another user. You can configure the system to automatically print incoming faxes, as well as automatically OCR received faxes (Figure 7).

OCR — OK!

We tested the OCR functionality to see how well it would route based on some test words. Setting up the OCR route table is as simple as modifying a text file called "ROUTE.TXT." The process consists of entering a user identification (user ID) and a matching keyword. When a fax is received by the RightFax server, it uses this file to see if it can find a match. If it matches a keyword, it then looks up the user ID. Depending on how that particular user has their fax mailbox set up, the server routes it to the proper mailbox. Our first test entailed entering our last names into some test faxes. The OCR module detected the words perfectly and routed the faxes to the appropriate person.

Since we were looking for a fax-server solution for our office with excellent routing capabilities, we really put RightFax to the test to see if this was the solution for us. Routing was as important a consideration as any in the decision for us to install an enterprise faxing solution. To get 100-percent accurate fax routing to every person's desk in our office, we would require DID. Although this is the most accurate means of assuring the faxes are routed properly, we are not currently planning to install DID, so we figured we'd settle for 80 – 95-percent accurate routing. Our next best option was using OCR routing which has about an 80 – 95 percent routing accuracy, which in turn begged the question: "Is RightFax's OCR accuracy up to our standards?"

One thing we wanted was the ability to

Figure 5. RightFAX: Global settings can be modified from the board configuration screen.

Figure 6. RightFAX: This screen enables the user to select various channels and inbound/outbound settings.

route all our CTI Magazine and TCCS subscription forms directly to an employee in customer service. For this test, we faxed one of our subscription forms directly from Adobe Acrobat and added "subscribe" to the ROUTE.TXT file. The OCR module did not detect the word "subscribe." Rather than give up on OCR right then and there, we decided to check what went wrong. Fortunately, RightFax comes with a history option to log the fax transmission, including what happened in the OCR process. We brought up the history for this particular fax and saw what the problem was.

The font used on the subscription form was small. This caused the OCR to incorrectly detect "suhscrihe," instead of "subscribe." No problem. All we had to do was just add "suhscrihe" to the ROUTE.TXT table, thus increasing the

odds that the subscription forms will go where they are supposed to go. Nobody said OCR is perfect, but with a little testing and some tweaking you can get very good results using OCR routing. We sent this first test fax electronically from Adobe Acrobat, which of course is much "cleaner" than sending it through an actual fax machine. We sent our next test fax the old-fashioned way — through an actual fax machine. Once again, the OCR module interpreted "subscribe" as "suhscrihe," but since we had previously added that keyword to ROUTE.TXT, it routed perfectly.

To increase the chances of correctly detecting our subscription forms we could have increased the font size of the word "subscribe." However, we chose to add a code to the form, such as "XX37," which characters can easily

be interpreted by the OCR module. Of course, a letter such as "G" can be confused with the number "6" or the letter "l" could be mistaken as the number "1". By taking account of these considerations, you can increase your chances of your faxes being OCR'ed properly. After adding a code to the subscription form, we sent 20 test faxes, and all 20 faxes were OCR'ed and routed correctly. Thus, we had 100-percent OCR accuracy. Now, we don't pretend that this figure is statistically valid, nor do we foolishly believe that 100 percent of all our incoming subscriptions will be routed properly. However, we'll settle for close to that figure.

"Pardon me, but I believe that's MY Fax…"

We weren't done putting RightFax's OCR module through its paces just yet. We were curious to see how it would handle multiple keywords contained in the same fax. Suppose someone faxes a memo to Tom Smith regarding his assistant Ann Jones. Obviously, the fax is intended for Tom Smith. The ROUTE.TXT table will contain entries for both employees, so that any faxes

C onsidering the complexity of all the features and modules which we installed, we were surprised we didn't have more problems. Client installations were also a breeze.

any keyword appearing first in this file has the highest priority. Ann's name was at the top of the file, thus giving this keyword the highest priority. We could have moved her name below Tom's, but then any fax with both names would always be routed to Tom. This too, was not what we wanted.

We feel that the OCR module should do a top-down, left-to-right prioritization scanning of keywords. Once it matches a word, it should route based on that match because more often than not, the person's name, to whom the fax is addressed, is positioned at the top of the fax, i.e., ATTN: Tom Smith. Thus, scanning top-down/left-right and routing based on the first keyword found would resolve this problem and route the faxes more accurately.

with their names in it will be routed to their mailboxes.

In performing the test, we had hoped that the OCR module would scan the fax from left to right and from top to bottom, see Tom's name first on the fax page, and then route the fax to him. However, this was not the case. The fax was actually routed to Ann's mailbox. We determined that the OCR module prioritized its OCR routing based upon location within the ROUTE.TXT file. Basically,

One Step From OCR To User App

The OCR processing is all done on the server using its 32-bit architecture; thus, there's no need to install OCR modules on each client. RightFax can also OCR a fax and convert it to a user-specified application for editing. For instance, you can choose to have RightFax OCR a fax to ASCII, RTF, or Smart ASCII, and choose the application with which to open the converted document. We tested using the RTF format and chose Microsoft Word as our application to open OCR documents. We had RightFax automatically OCR

all of our faxes in one of our test mailboxes. Then, we simply clicked on the "Launch" button, which opened the RTF in Microsoft Word for editing.

Having tested RightFax's OCR module thoroughly, we concluded that, overall, the OCR module was an excellent feature. We were definitely impressed with its accuracy, functionality, and ability to route our faxes correctly. If RightFax implements our idea of routing based on the first keyword encountered in a fax, we'd be even happier about the OCR module.

No Lock Out

Having installed the RightFax client software (FaxUtil, FaxAdmin) on a Windows 95 machine, we were curious what would happen to the clients if we brought the RightFax server down. We hoped that rebooting the server wouldn't lock (or temporarily freeze) the client machines. We opened the FaxUtil and FaxAdmin programs on the client machine and then rebooted the RightFax server. The Windows 95 machine didn't lock or freeze. However, when we brought the RightFax server back up and then tried to open a fax from FaxUtil, we were unsuccessful. Apparently, the connection to the server was gone, and we could no longer access the FaxUtil and FaxAdmin programs. We closed the two programs, as well as the RightFax tray icon, and then restarted the RightFax client software program. Users' machines won't lock if the RightFax server crashes, but they will need to restart their RightFax client software. Again, nothing to get overly excited about.

Database Integration

We should mention that RightFax comes with the ability to connect to your contact information in your existing databases. You can also create your own phonebook list in RightFax. RightFax supports ODBC and MAPI, giving you

the capability to attach your existing database as well as address books in Microsoft Exchange and Outlook.

ROOM FOR IMPROVEMENT

We tried single-clicking on the column headings within FaxUtil to change the sort order, but it didn't work. We saw in the manual that a double-click on a column heading will change the sort order. We'd prefer a single-click to perform a sort operation since many grids and spreadsheets use the single-click convention.

We'd like to be able to right-click on faxes in FaxUtil and perform a resubmit, kick, or release operation instead of having to go into the menus to perform this task. Currently, there is no resubmit option, which would resend the same fax to the same fax number. You have to forward the fax and then retype the fax number. Another inconvenience is that RightFax doesn't remember which settings you chose (ASCII format, RTF format, etc.) when you OCR a fax. We'd like to see a default file format option.

Finally, we'd like to recommend that RightFax consider adding fax-on-demand functionality to their product. While most LAN-based fax servers and fax-on-demand servers are traditionally separate, with today's "universal port"

While most LAN-based fax servers and fax-on-demand servers are traditionally separate, with today's "universal port" hardware cards, it makes good sense to combine these two disparate servers into a single entity.

hardware cards, it makes good sense to combine these two disparate servers into a single entity, thus saving tremendous costs by reducing the number of boards which need to be purchased.

Another advantage to combining these two systems is a reduction in administration headaches and the creation of one central repository of fax library documents. As it stands, if you have two separate systems, you most likely have fax documents stored on the hard disks of both systems. This is a waste of disk space, and making sure both servers have the latest versions of fax documents can be a nightmare. Since RightFAX supports Brooktrout's board (see following review), which supports voice, and since RightFax features an extensive library for storing faxes, it shouldn't be too difficult to add fax-on-demand functionality. We already use RightFax's library to store commonly requested faxes.

Sending one of these faxes requires employee intervention (and time) to send it. Adding fax-on-demand capabilities to RightFAX would only enhance an already spectacular network faxing solution.

And, as previously mentioned, we'd like to see the OCR module do a top-down, left-right prioritization of scanned keywords for more accurate OCR routing.

CONCLUSION

RightFAX is one of those rare products that has just about every feature you are looking for. We were extremely impressed with this network faxing solution. Admittedly, we may have been a bit overzealous with some of RightFAX's truly minor shortcomings, but that's only because we intend to use this product ourselves. CTI Labs highly recommends this product for any corporation looking for a network fax solution. ∎
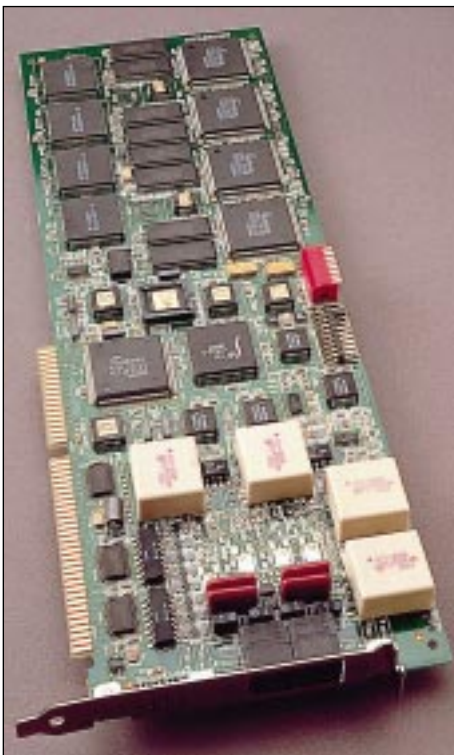
TR114 I4L (4-Port Loop-Start Card)

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E-mail: techsupport@brooktrout.com
Ph:617-449-4100; Fx: 617-449-9009
BBS: 617-449-9279
WebSite: www.brooktrout.com
Price: $3295 (+$200 to add voice)

We needed a fax board to test the network faxing solution from RightFax (see review, page 46). The RightFax software works with GammaLink and Brooktrout boards. We already had a GammaLink fax board working on our in-house network faxing solution, so we decided to check out

Brooktrout's TR114 board and see if it was as dependable as the GammaLink board. We weren't disappointed.

The TR114 comes in several varieties, including loopstart, DID, and digital. Depending on which version you purchase, you can get 2, 4, or 8 independent fax and/or voice channels in one 8-bit or 16-bit EISA slot. Each channel has a 25 MHz NS32FX16 or NS32FX164 microprocessor (32-bit CISC with built in DSP) and 1M RAM with parity checking. Furthermore, each channel offers full Group 3 fax send and receive functionality, with advanced features such as Error Correction Mode and MR or MMR compression.

INSTALLATION

The installation was a snap. The default base I/O address was set to 260 hexadecimal, which didn't conflict with any of the other hardware devices in the Pentium-100 computer. Several I/O addresses were available, and they were easily switched from the DIP switches on the

4-Port Analog Boards	Fax Price	Fax Price/Port	Voice + Fax Price	(Voice + Fax) Price/Port
*Brooktrout TR114-I4L	$3295	$824	$3495	$874
*GammaLink CPi4 LSI	$2995	$749	N/A	N/A
**Dialogic VFX/40ESC	$3835	$959	$3835	$959
**Dialogic VFX/40ESC Plus	$2595	$649	$2595	$649

* Note: The Brooktrout TR114-I4L has more functionality (voice & fax) than the GammaLink CPi4 LSI, but for strictly faxing purposes (no voice), purchasing a GammaLink board might be a more appropriate decision based on cost.

** Note: These Dialogic boards do not compete directly with the Brooktrout board in the network-faxing software arena (such as RightFAX, Omtool, etc.). In fact, we have not seen the VFX/40 boards supported by any of the major network fax software programs. Generally, GammaLink and Brooktrout are the two most commonly supported high-end faxing boards. The Dialogic boards, however, are primarily focused towards developers, particularly developers of unified messaging solutions, utilizing the VFX's inherent "universal port" functionality. It is in this area of unified messaging solution development where Brooktrout's TR114 and Dialogic's VFX/40 *would* compete. In this market space, the VFX/40ESC Plus competes very well price-wise with the TR114, as well as having the same universal port functionality.

board. We really appreciated the location of the DIP switches on the Brooktrout board — the DIP switches are located on the top of the board, which allows you to change the DIP settings without unscrewing the board and taking it out. The default interrupt was set to 5, which also didn't conflict with any other device. You can, however, switch to interrupts 3, 4, 6, 7, or 9 in 8-bit slots, or 10, 11, 12, 14, or 15 in 16-bit slots.

After installing the board, you can run the diagnostic software, which is provided on a single diskette. Using the software, you can test sending faxes, receiving faxes, and you can also verify DID operation. The TR114 also features LEDs, which can be used to monitor the status of the board.

RATINGS (1-5)

Installation: 4.95
Documentation: 4.35
Features: 4.95

PRONEXUS 4/C

OPERATIONAL TESTING

We installed the board without any glitches and decided to skip the diagnostic tests, installing the RightFax software right away. Upon installing the RightFax software (which installed the appropriate Brooktrout drivers to the Windows NT 4.0 machine), we sent a test fax and met with success on the first try. We then tried receiving a fax on the Brooktrout board. This too, was successful on the first attempt. For our final test, we used another fax server to blast some faxes to the four ports on the Brooktrout board. As that was happening, we sent some faxes from the RightFax server to a regular fax machine. Thus, we had both incoming and outgoing faxes from the TR114 board. The TR114 took our torture test in stride, easily switching from receiving a fax to sending a fax when a channel entered an idle state. This was one of the simplest and most trouble-free installations we've had, which helped earn the Brooktrout board a 4.95 installation rating.

DOCUMENTATION

The documentation earned a 4.35 rating. The detailed installation instructions, as well as the diagrams depicting the board layout were all very good. Some troubleshooting hints (resource conflict resolution) and an index would

TR114 FEATURES

- Speech record and playback using ADPCM and PCM.
- Downloadable firmware – purchase just the features you need. Updates are made by purchasing a diskette to enhance functionality.
- DTMF, SIT, CNG, and CED detection.
- Group 3 and 4 fax compression, auto-conversion of ASCII, MHMR, MMR, TIFF, and PCX/DCX files
- Binary file transfer capability.
- Automatic page reduction or expansion of the page width on transmission (A4, A3, and B4).
- Supports fine and normal resolution
- Adaptive call progress capability that works worldwide.
- Fax auto-routing using DID interfaces.
- Links to PEB or MVIP interfaces using optional digital interfaces.
- Supported operating systems include: Windows 95, NT, OS/2, and various flavors of UNIX.

have been nice; still we were satisfied with the documentation.

CONCLUSION

We are very impressed with the TR114. We've had RightFax up and running with Brooktrout's TR114 board for over 2 weeks without ever having to reboot the machine. Often with some fax boards, particularly modem fax boards, certain channels or ports will freeze requiring a complete system shutdown to reset the port. This isn't the case with the TR114, which is still chugging along, as of this writing.

The TR114 is best suited for applications where both voice and fax are required, to reap the true value of the universal port concept. Using a TR114 board in our RightFax server just for fax might be overkill (according to the accounting department), since a fax-only GammaLink board could do the job at less cost (Table 1). But certainly for applications where voice and fax are required, the TR114 provides a cost-effective solution. Another case for using the TR114 in the RightFAX server would be to take advantage of RightFAX's voice-assisted DTMF feature. In this case, the TR114 makes good sense. By using the TR114, you no longer need to purchase separate voice and fax boards, the price of which can add up quickly.

The TR114 is a terrific combination voice/fax board with tremendous functionality, a good price, and excellent dependability. Plus, it's easy to install. All of these traits helped Brooktrout's TR114 earn CTI Magazine's Platinum award.

TeleMagic

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E-Mail: sales@telemagic.com
WebSite: www.telemagic.com
Pricing: $500 – 1 user; $1,300 – 5 users; $2,300 – 10 users; $7,300 – 35 users; (call) – 50 users.

Telemagic is a customizable, feature-rich, enterprise-wide contact manager program. Unlike a personal information manager (PIM),

TeleMagic was designed with the corporate or enterprise environment in mind. The product allows you to share contact information with your colleagues over the corporate network. This contact management software features many third-party add-ons, as well as computer-telephony integration (CTI) modules. With TAPI- and TSAPI-enabled TeleMagic installations, you can generate and answer calls with a click of the mouse, directly through a TAPI- or TSAPI-compliant phone system. Additionally, there are interfaces between TeleMagic and other telephony solutions including automated call distributors (ACDs), voice mail, wireless, pagers, and unified messaging systems, as well as other communications devices.

INSTALLATION

Both preplanning issues and post-installation modifications had to be considered for installing the TeleMagic software. For instance, we needed to bump up the FILES parameter in the CONFIG.SYS, as well as map an unused drive letter to a network drive in performing a shared network installation. This mapped drive must be the same letter on all subsequent client installations. In addition to the preplanning, there were some post-installation issues as well. TeleMagic recommends marking all .EXE, .APP, .DLL, .ESL, .FON, and .FOT files in the TeleMagic directory as read-only and shareable. To do this, you must either use the obscure DOS ATTRIB command or use Windows Explorer. Neither option was appealing to us. We felt the TeleMagic installation should do this automatically. At the very least, TeleMagic could have provided a batch file to change the file attributes. Nonetheless, the installation went smoothly, and we were up and running in about 5 minutes. Installation merited a 4.00 rating.

DOCUMENTATION

The documentation was broken down into three separate manuals,

which included the user's guide, system administrator manual, and the data sync manual. The manuals explain the various features step-by-step and are accompanied by informative screen-shots. The indexes in all three manuals were very good, making it easy to look up a particular feature. Documentation garnered a 4.5 rating.

OPERATIONAL TESTING

One of the more unusual features about TeleMagic is its ability to grant or hide information, down to the field level, from certain users. For example, a salesperson may see information about a customer's orders, while the accounting department sees the customer's collection history. Each person can have their own unique and appropriate view of the contact information (Figure 8). In addition, TeleMagic provides the capability of read only, full access or no access to certain fields on a per group basis. This is very important in a corporate environment, where information needs to be viewed, but where security is also a critical issue. Overall, security was excellent, but due to the non-client/server architecture of the FoxPro database, there is a slightly greater risk of data loss or corruption, which affected the security rating slightly. There are, however, rebuild and data recovery utilities designed to recover your data.

Every aspect of Telemagic can be customized, from the placement of the data fields to the number and type of fields displayed on a particular screen. We were able to customize a few screens using the graphic design program very quickly (Figure 9). TeleMagic also comes with an activity manager with an alarm feature to assist you with appointments and obligations (Figure 10).

TeleMagic is built around FoxPro's database engine, using a three-tier relational structure within each database. That gives you three related screens per record, each capable of holding up to 252 fields. After creating, defining, and customizing a field, you will have to rebuild the database to reflect these changes. This requires that you make sure all users are logged off the system. This is a limitation in the FoxPro database design, which other databases such as Oracle or Microsoft's SQL Server do not suffer from, since they are true client/server database packages. (Rumor has it that Microsoft
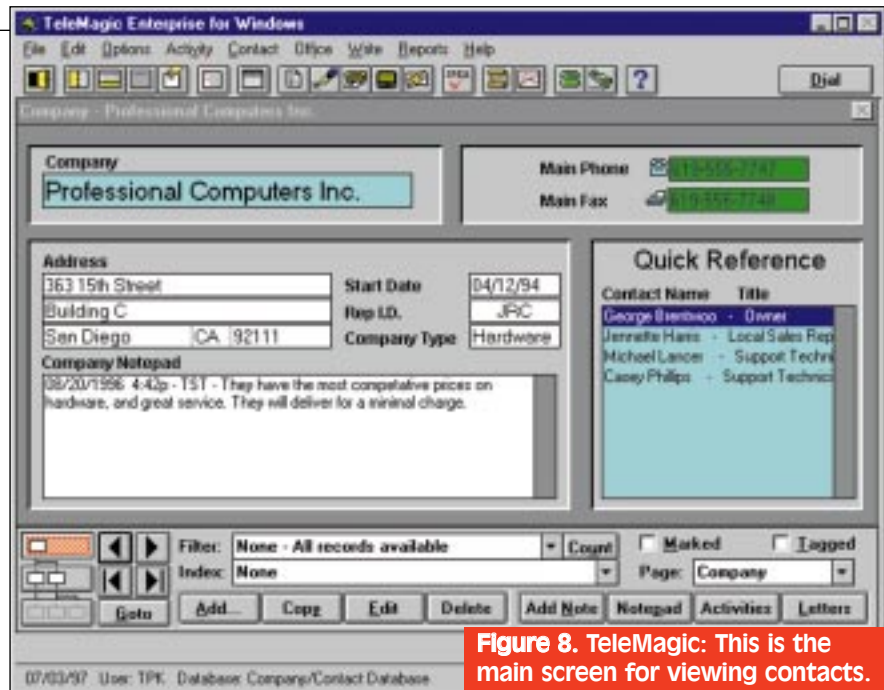
Figure 8. TeleMagic: This is the main screen for viewing contacts.
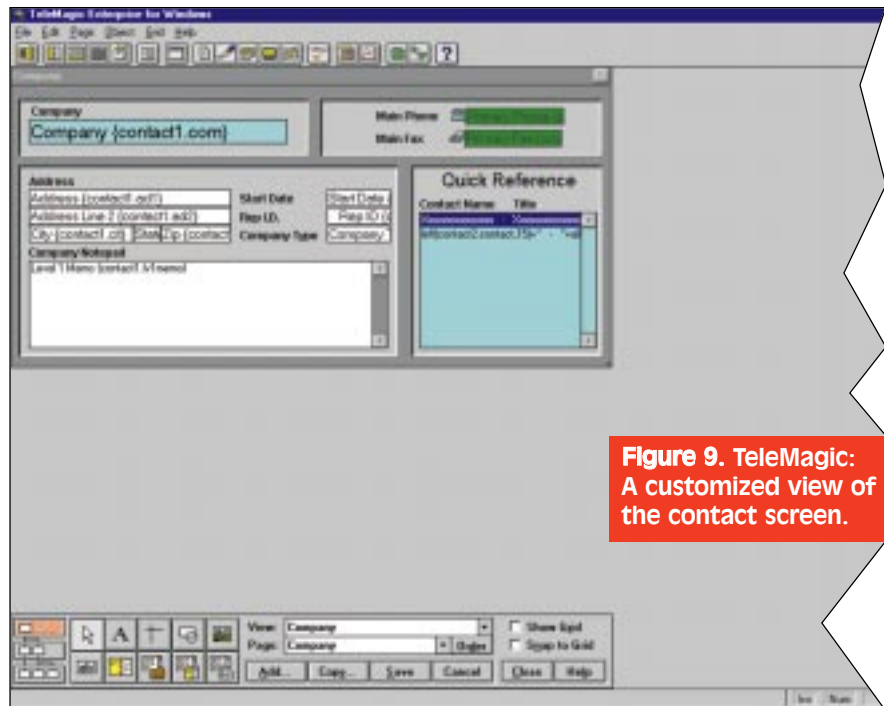
Figure 9. TeleMagic: A customized view of the contact screen.

Figure 10. TeleMagic: The activity screen has alarm features to assist users with appointments and obligations.

will be shipping a client/server version of FoxPro in the near future, which will greatly enhance

Figure 11. TeleMagic: The sales forecasting screen.

TeleMagic and other contact management software packages that rely on the FoxPro database format.)

TeleMagic's database synchronization feature really impressed us. This feature ensures that the latest versions of contact and activity data are updated automatically. You can define update criteria based on dates or changes, and merge a file containing only altered records with your database for faster updates — a great feature to have if you are sending changes via modem. This is perfect for keeping database changes by your road warriors in sync with the main database. We also liked TeleMagic's sale forecasting feature, which is very useful and easy to use (Figure 11).

TeleMagic comes with the capability to communicate with your word processor by merging its contact data with Microsoft Word, Ami Pro, or WordPerfect for mail merges, as well as supporting fax merges. TeleMagic also supports embedding OLE objects into its fields. In addition, TeleMagic also features automatic duplicate checking. When a duplicate record is found, you are notified so you can resolve the duplication issue. By having TeleMagic constantly checking for duplicates, the database will clean itself up.

TeleMagic's document History list enables you to track your activities with your contacts. Each time you print or fax a document to a client, that document is added to a list specific to that contact.

TeleMagic supports group schedul-ing in addition to standard activity assignments. You can now create an activity that will be completed by more than one TeleMagic user, which is useful for events, meetings, and projects that impact a team of users. TeleMagic can even show you the time when everyone is available. The integrity of the activities is maintained by having only one "owner" for any group activity. With TeleMagic, users can create an activity to reserve those resources for a given date and time, avoiding conflicts when multiple users wish to use the same resource.

The Fax Server in the latest version of TeleMagic has been enhanced and is now a complete Automation Server, including fax reporting and processing of faxes, wireless messages, and word processing documents. It has been enhanced to allow you to set up servers to process fax documents without sending them. This enables you to devote workstations with fax modems solely to the task of actually sending the faxes, while other workstations perform the task of processing and merging the documents.

FEATURES

Some general features included with TeleMagic are:
- Built-in e-mail support.
- User-defined keys/macro capability.
- Branch scripting.
- Sales automation including analysis, quotations, results, and lead management.
- Mail-merging, fax-merging, and e-mail merging are all supported.
- Screen formats and views are fully customizable.
- Automatic recall setting.
- Quick dial phone buttons.
- Extensive built-in standard reports as well as ability to customize your own reports.

Some of the other features offered by TeleMagic, specifically designed to enhance its CTI capabilities, include:

Contact-screen "pops" — Using caller ID information, Telemagic automatically brings up the contact information corresponding to an incoming caller's phone number.

Outbound dialing — Instead of manually dialing a client's phone number, you can use TeleMagic to dial out directly through your PBX phone system.

Call control — The call control window gives you the ability to place calls, put calls on hold, transfer calls, and set up conference calls.

Automatic phone log — The comprehensive phone log tracks all inbound and outbound calls, including the number, name, date/time, duration, account, and status.

Built-in phone dialer — TeleMagic comes with a built-in dialer with point-and-click number pad and 15-number speed dialing.

TeleMagic integration — Through the use of Dynamic Data Exchange (DDE), CTI provides a near seamless integration with TeleMagic, resulting in a fast, accurate record retrieval and customized settings.

CONCLUSION

This contact manager is loaded with features and customizability. Everything — from the GUI, to adding customized fields, to hiding or sharing data, to effectively managing your contacts — can be done effortlessly with TeleMagic. With TeleMagic's extensive VAR channel, you can also arrange to have consultants come and customize TeleMagic to fit your particular business model or needs. With TeleMagic's extensive support and integration of CTI functionality, you will be able to cut phone costs, make your employees more productive, and shape your customers' perception of your corporation as a progressive, efficient, and professional organization.

GoldMine 3.2 For Windows 95 and Windows NT 4.0

1997 CTI EDITORS' CHOICE PLATINUM
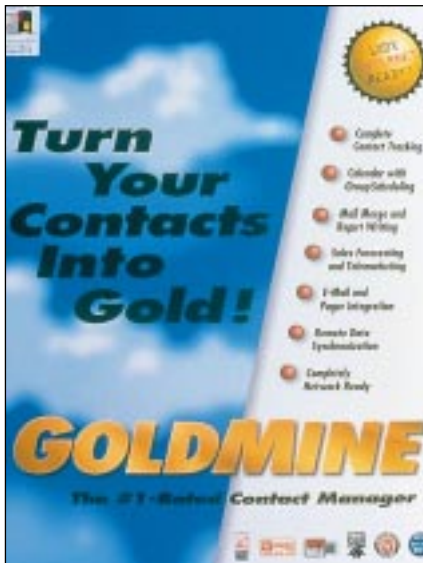
GoldMine Software Corporation
17383 Sunset Boulevard, Ste. 301
Pacific Palisades, CA 90272
Ph: 800-654-3526; Fx: 310-459-8222
http://www.goldminesw.com
CompuServe: GO GOLDMINE

Pricing: Single User – $295; 5 Users – $895; 10 Users – $1,695; 25 Users – $3,995; 50 Users – $7,550. (Volume purchase for 50 users or more.)

I f you are looking for contact management software, then GoldMine just might be for you. GoldMine 3.2 for Windows 95 and Windows NT 4.0 has all the features of a great PIM, but the product really shines in enterprise-wide data (record) sharing. GoldMine includes such features as Internet Web import, seamless ACT! import, integrated organizational charts, reporting, wireless paging, multimedia management, and Web data maintenance. GoldMine 3.2 integrates contact management, document management, sales automation, and activity planning into a single user-friendly interface.

DOCUMENTATION

The documentation was detailed, but we did notice some repetition. The indexes were good, but the user's guide omitted some important keywords, such as "mail-merge," "e-mail merge," and "fax merge." Even the two reference manuals didn't list these three keywords. One of the reference manuals does have a "Merge forms" entry in the index, but "mail," "e-mail," and "fax" were absent from the sublistings. The reference manuals came in handy for looking up DDE function calls and other various features. Overall, the documentation was very good, and thus garnered a 4.90 rating.

OPERATIONAL TESTING

We installed the GoldMine 3.2 software onto a Windows 95 Pentium 120. Installation went smoothly. After we installed the program from 3 disks, GoldMine automatically launched itself, presenting us with the main user

HAMMER 4/C

interface (Figure 12). GoldMine supports MDI (multiple document interface), which allows you to display multiple records. We liked GoldMine's organizational chart feature. This feature allows you to group related contacts in hierarchical organizational charts (or trees) to create graphical views of companies. Another feature we liked was the peg board. The peg board provides a color-coded graphical view of all user login and logout times, which is useful information for management and system administrators. The peg board also logs keyboard and mouse activity during a GoldMine session — an invaluable tool for training or improving employee productivity.

Configuring GoldMine was very easy. All the menus and preference settings are organized into dialog boxes with tabs. Under these tabs, you can configure the modem, Internet, schedule, calendar, pager, and other settings. The Preference dialog box with the calendar tab displayed is shown in Figure 13. With any contact manager, scheduling call backs is very important. GoldMine handles this task with power and ease. A user-friendly interface gives you several options, including scheduling the time, inviting other users, and other features (Figure 14).

Reporting

To give you a head start, the program comes preconfigured with several common reports (Figure 15). Customizing
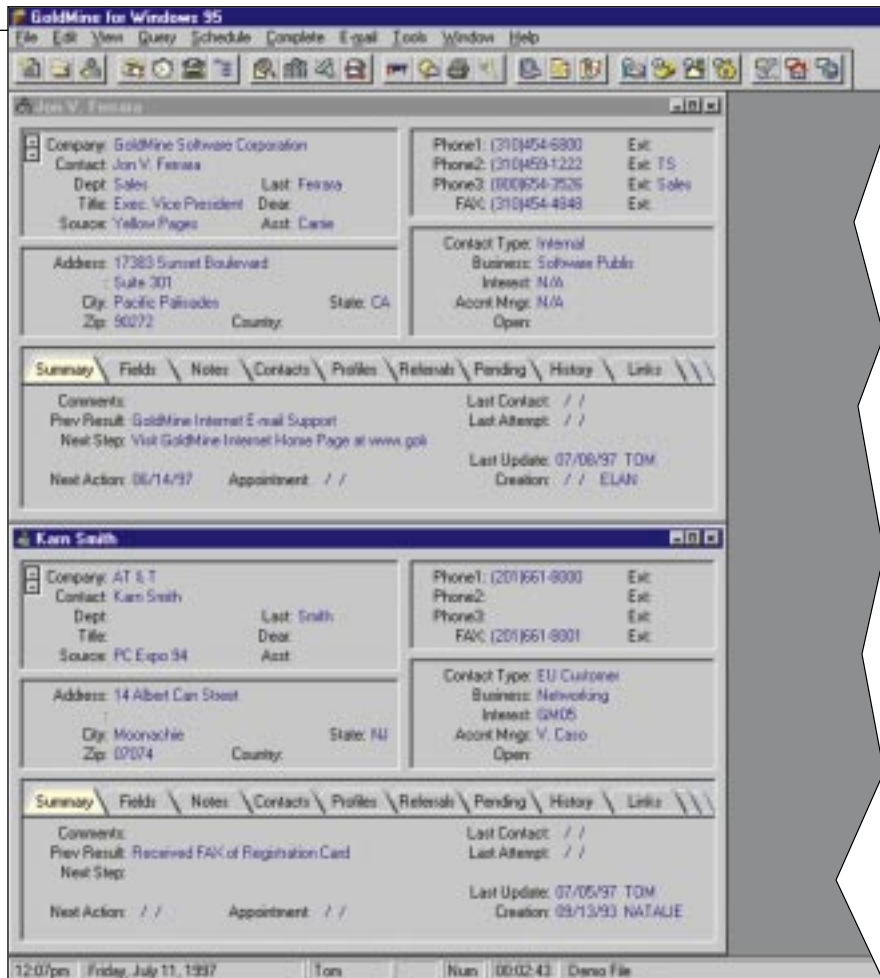
**Figure 12. GoldMine: Main screen showing multiple contact listings.**

our own reports using GoldMine's form designer (contact reports, calendar reports, and activity reports) was simple. We wanted one series of reports to be automatically created and printed, so we used GoldMine's automated macro capability, which also let us

automate any repetitive task. GoldMine is also DDE compliant, automatically linking any DDE program such as Microsoft Word, Winfax Pro, Microsoft Excel, and others to GoldMine. These files can even be dragged-and-dropped to a contact's record.

Knowledge Base

GoldMine features a powerful knowledge base called InfoCenter. It provides a resource for maintaining any type of information, including text, graphics, multimedia files, and program applications. All of this information can be linked to a contact within a GoldMine database and pulled up whenever this contact is viewed. The knowledge base has two parts, the knowledge base and the personal base. The knowledge base stores organizational information such as employee benefits, health insurance, pension, territory breakdown for sales personnel, and other topics which multiple users can access. The personal base allows a user to create a similar information environment for personal use.
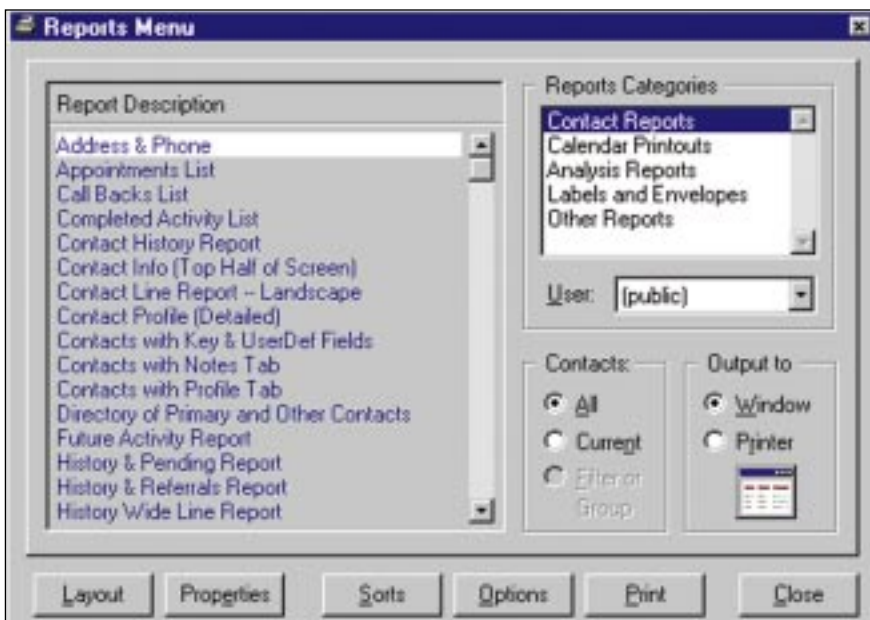
GoldMine's Internet integration
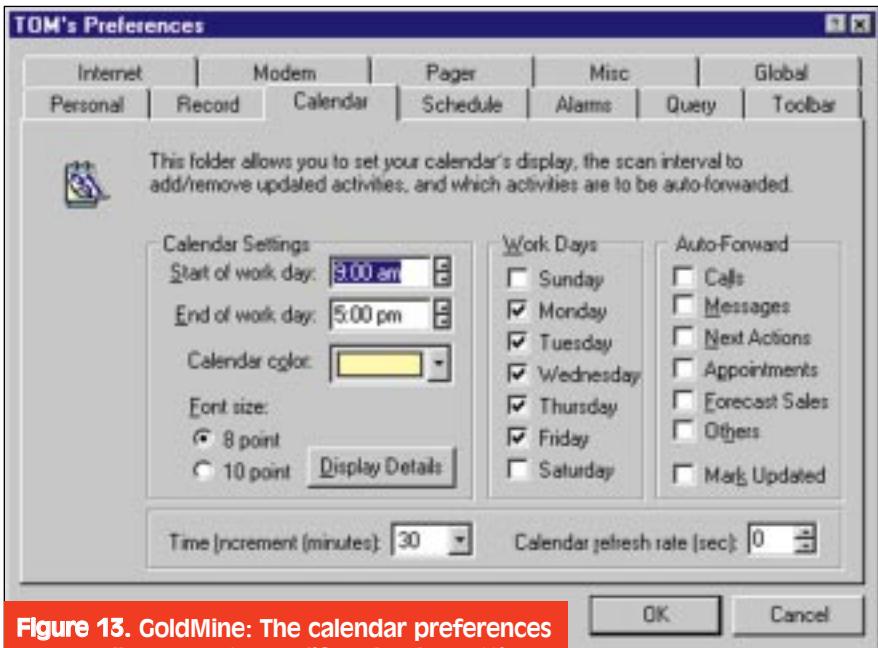
Figure 13. GoldMine: The calendar preferences screen allows you to modify calendar settings.
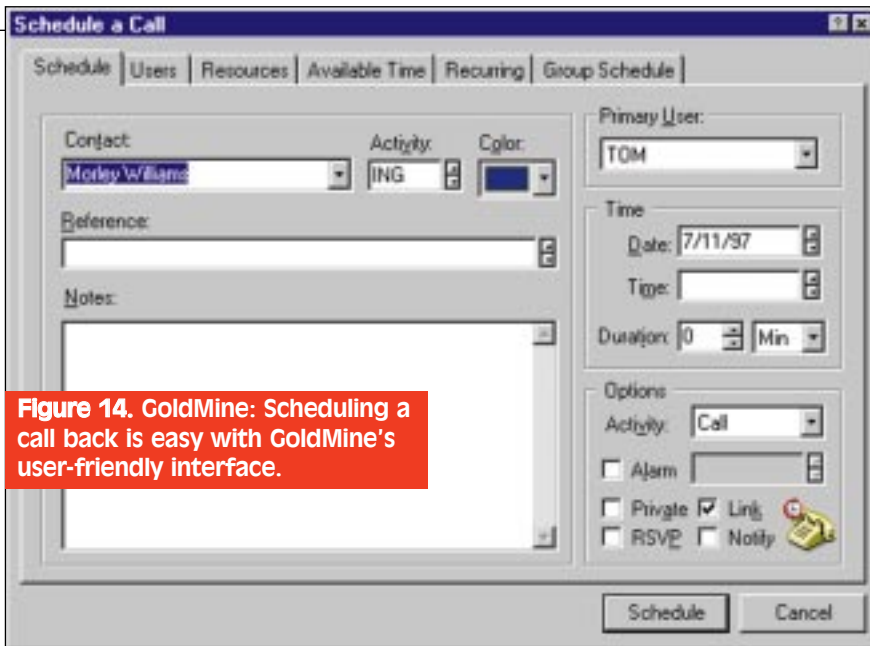
Figure 14. GoldMine: Scheduling a call back is easy with GoldMine's user-friendly interface.

Figure 15. GoldMine: The program's-reporting capabilities can be accessed through the reports menu.

your database. Support for alphanumeric pagers is also available so you can send descriptive messages. GoldMine's fax integration is also excellent. GoldMine provides integration with two popular faxing products, RightFax (see review on page 46) and Symantec's WinFax Pro (see review on page 72). Just as in the e-mail merging and mail-merging features of GoldMine, fax-merging is also available and uses the same consistent interface, making it very easy to quickly learn and use all three merge types.
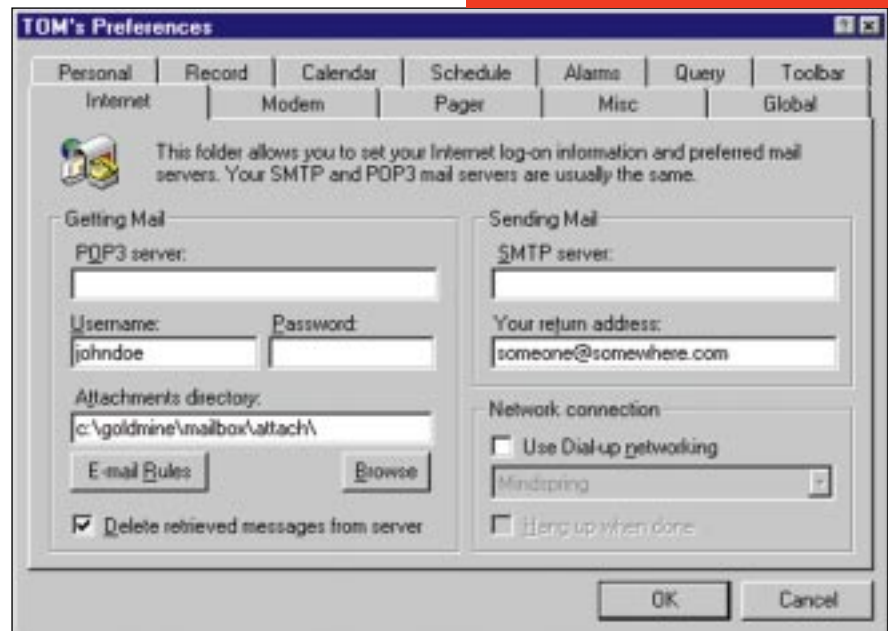
FEATURES

Some of the more interesting features include:
• Sales forecasting.
• Branching telemarketing scripts.
• Comprehensive history tracking.
• Fully customizable and expandable database structures.
• Mass fax/mail merging capabilities.
• Unlimited notes for each contact, and history.
• Remote data synchronization.
• Organizer printouts, to take your schedule with you wherever you go.

ROOM FOR IMPROVEMENT

It was a bit of a nuisance to release an active group. To do so required that we click on View, then Contact Groups. From there we clicked on the Release

Figure 16. GoldMine: The Internet preferences dialog box allows you to change e-mail settings, network connection, and log-on information.

capability is excellent. You can keep your contact information up-to-date by synchronizing databases via the Internet. You can also import contact data from remote users and Web sites using the Capture/Launch feature, which automatically enters captured data entered onto a Web page to create new contact records. A nifty feature within GoldMine is the ability to launch Web sites and send e-mail — all from within GoldMine. You can set up Internet e-mail retrieval, POP3 server, and e-mail rules (Figure 16). Another communications link which GoldMine provides is access to pagers, whereby you can page any customer or client in

button to return to the entire contact database. The program should allow users to release a group via a toolbar icon.

We discovered another slightly confusing issue when adding a user-defined field to the database. The program requires that you leave the prefix "U" in front of the field name. When adding a user-defined field, the letter "U" is actually highlighted, so as you begin to type, the required letter "U" is overwritten. A user can also backspace the letter "U" which was automatically placed there. Fortunately, GoldMine will automatically replace the "U" prefix after you click on OK. But if it's going to force us to have a "U" prefix, why not just leave the "U" out of the dialog box altogether and automatically add it after the user clicks on OK? This would be much less confusing.

We'd like to see a warning to backup the CONTACT2.DBF file before fields are added or changed. Better yet, we'd like to see the program automatically

System Requirements

- A 486 or higher PC
- VGA
- 8 MB memory
- 8 MB hard drive space
- Microsoft Windows 95 or Microsoft Windows NT 4.0 and any DOS file record locking compatible network. ∎

backup the CONTACT2.DBF to a backup file on the hard disk and then apply the changes made by the user. This would be particularly useful, since the computer could crash in the middle of recreating the database to reflect any new field additions or deletions. Although we are sure GoldMine did some usability studies to determine the best layout for fields, labels, tabs, etc., we'd still like the ability to

redesign the layout of the graphical user interface (GUI) to our personal specs.

CONCLUSION

This contact manager program has just about everything you need to manage your contacts. The GUI is well-designed and includes MDI (Multiple Document Interface) capabilities, which is handy for displaying multiple sets of records. We are impressed with the speed at which we could scroll through records and create complex queries. GoldMine has a rich feature set, including sales automation, reporting, activity planning, and (of course) extensive CTI functionality through its third-party support. CTI Labs recommends GoldMine for any corporation looking for a powerful contact manager with a rich feature-set and extensive CTI support.

RATINGS (1-5)

Installation: 4.25
Documentation: 4.90
Features: 4.90
GUI: 4.50
Security: 4.70

Personal Call Manager

Nortel
4001 East Chapel Hill-Nelson Highway RTP, NC 27709
Phone: 1-800-4-NORTEL
http://www.nortel.com
Pricing: CTA 100 (bundled with PCM) – $225; PCM software only – $80.

GoldMine's CTI Support

Active Voice is the developer of TeLANophy, the LAN integration software designed to provide the high performance Repartee Voice Processing System features for desktop PCs. Active Voice's ViewCall module integrates with GoldMine to offer users complete incoming call-handling capabilities. ViewCall automatically informs GoldMine users of callers, and locates and displays the corresponding records before the incoming call is answered.

CTI Interactive is the developer of Call Commando for GoldMine. When used with caller ID from your local phone company, Call Commando instantly captures the name, number, and address on every phone call and displays the information at your workstation. Call Commando automatically updates the GoldMine database with every incoming and outgoing call.

PAGE TeleCOMPUTING is the developer of Link & Sales Call for GoldMine. Link & Sales Call is a

TSAPI, TAPI, and AT&T PassageWay Solution translator, which converts GoldMine's dialer to any of these platforms. Link & Sales Call offers telemarketers features including background cross-referencing of dialed numbers against a .DBF file of restricted or "no sales calls" numbers. SCRS (Sales Call Restriction Software) guarantees compliance with all "Don't Call Me" laws, including the federal TCPA, Florida, Texas, and Oregon laws.

SoftTalk Technologies is the developer of PHONETASTIC call control software. PHONETASTIC telephony enables GoldMine to automatically pop the screen of incoming/outgoing callers, using either analog or digital phone lines (PBXs). With PHONETASTIC's intelligent rules engine, calls can be processed automatically based on any criteria you determine — important calls can be forwarded to your cellular phone and unimportant ones can be dumped into voice mail. ∎

Desktop computer-telephony integration (CTI) is about to receive a shot in the arm from switch giant

Nortel and its new product, Personal Call Manager. Personal Call Manager is a TAPI-compliant application that gives users easy-to-use desktop call control. The application is designed to allow users to perform many telephone operations right from their desktop — saving them time and making them more efficient. It can also be a great tool to facilitate usage of many esoteric and awkward telephone functions, making the users faster and more efficient. Personal Call Manager works with any TAPI-compliant driver, but for our review we decided to bring Nortel's Computer Telephony Adapter into the fold. The adapter, which we interfaced to the Norstar PBX at one end and a Nortel telephone set at the other, is accessed through the Nortel TAPI Service Provider.

FEATURES

Personal Call Manager brings the call control features of the telephone set to the desktop. The greatest feature of this product (or should we say this technology) is

its ability to simplify call control for the average user who has become a slave to complex and perplexing telephone features. With Personal Call Manager at the desktop, the user can: make calls; redial telephone numbers; return calls; answer calls; put calls on and off hold; manage multiple calls; transfer calls; forward calls; conference calls; and activate and deactivate Do Not Disturb.

Personal Call Manager also has an integrated address book, which allows the user to store the names, addresses, and telephone numbers of contacts on the PC, where they are easy to find and use.

DOCUMENTATION

Since Personal Call Manager was still in beta at the time of our review, we did not anticipate a complete doc-

umentation, and in fact we did not receive one in print. However, the documentation (in Adobe Acrobat format) was installed in the Personal Call Manager directory by the setup program. We found the user's guide to be well organized and rich in details and graphics. All the Personal Call Manager features, from call answering to conferencing to address book, were explained thoroughly. The documentation rated a 4.7 score.

INSTALLATION AND OPERATIONAL TESTING

Our PBX system was the new Norstar-PLUS Compact ICS (Integrated Communications System) with a 4-line, 8-extension configuration. The Norstar-PLUS Compact ICS is a TAPI- and TSAPI-compatible digital key system, which brings high-end business communication capabilities to small- to medium-sized businesses. It can be expanded from a 4 × 8 (trunk × extension) to a 8 × 24 and can be enhanced with voice mail (Star Talk

SYMETRICS

Flash), fax messaging, fax back, and CTI modules.

We connected the Norstar-PLUS Compact ICS to caller-ID-capable POTS lines and 3 Norstar telephones, and designated one of these telephones (extension 23) for interface with Personal Call Manager.

Our test PC was a Pentium 120 with 16 Megabytes of RAM running Windows 95. In order to interface extension 23 to the PC, we used the Norstar Computer Telephony Adapter 100 as our TAPI device. This external device requires power and plugs into the RS-232 port of the PC. Nortel also provides other adapters, such as the 150i (an ISA card), the 200 (a Universal Serial Bus device), and the

Figure 17. Personal Call Manager: The Norstar Telephony Service Provider installed on our Win95 machine.

Figure 18. Personal Call Manager: Service provider parameters defined for extension 23.

500dm (a BRI ISDN device). We connected the TAPI box to the PBX's extension 23 and plugged the telephone set into the box.

At this point, the telephone set was ready to use even though there was no power supplied to the TAPI box. We connected the TAPI device to our PC's RS-232 port and powered it up. Next, we installed the TAPI service provider on the PC. The TAPI service provider is a driver software, which, once installed, acts as the liaison between the TAPI hardware and TAPI applications. We selected the Telephony applet from the Control Panel and added the Norstar Telephony SP to the telephony driver list (Figure 17). After configuring the TAPI service provider, we accessed the service provider information screen (from the Telephony Properties screen), which allowed us to view some of the service provider parameters (Figure 18). With the TAPI driver installation complete, we turned our attention to the Personal Call Manager CD ROM. We should underscore that, at the time of our review, Personal Call Manager was still in beta (our CD ROM had a handwritten label on it, indicating the beta version 1.0.7.0).

The Personal Call Manager installation went very smoothly. We were given a choice of languages to select from, and from there, the installation program asked a few other questions as it proceeded to install Personal Call Manager. We followed the installation with a

reboot and ran Personal Call Manager from its folder under Start/Programs. Personal Call Manager started out with four subwindows displaying an Explorer-like address book (Figure 19).

Address Book

The address book comes with two books by default, "My Contacts" and "Quick Dial." My Contacts can be populated with folders and subfolders, allowing the user to place contacts in appropriate groupings, while Quick Dial does not allow for any folders. Quick Dial is used for frequently dialed persons.

Adding a new contact was as easy as a right click in a particular folder, selecting New, and filling out the Properties dialog box (Figure 20). A complete profile of the contact could be defined here. This included typical information such as name, company, address, and business phone number, as well as home phone, mobile phone, fax number, e-mail, and notes.

Screen Pops

We liked being able to include a voice prompt and a picture with a contact's information. Whenever a call from that particular person is received, a screen pop showing the caller's information and picture is presented accompanied by the selected sound. Currently, only .BMP files are supported, but we hope to see more formats (such as .JPEG) supported in the future.
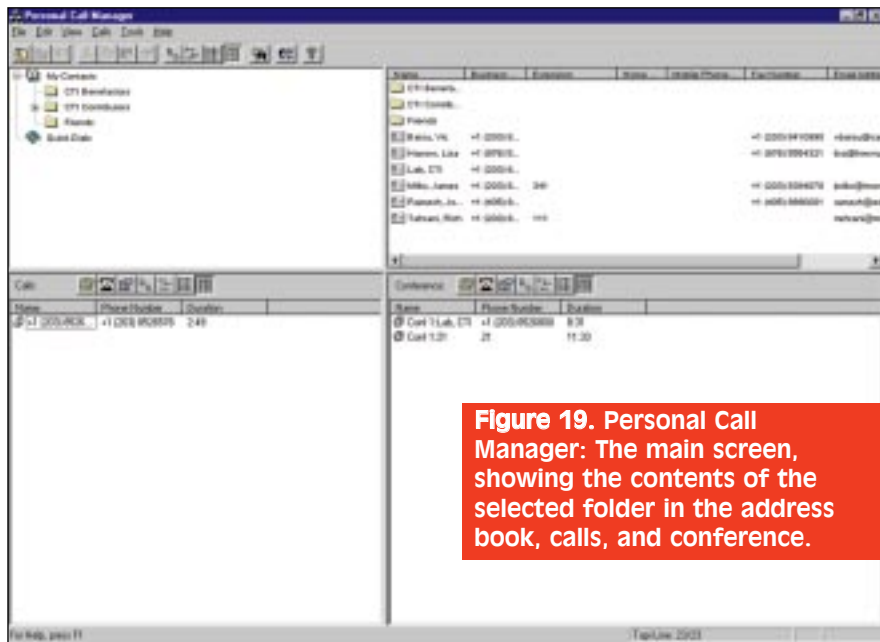
We tested the screen pop functionality by making a call into our extension

Figure 19. Personal Call Manager: The main screen, showing the contents of the selected folder in the address book, calls, and conference.
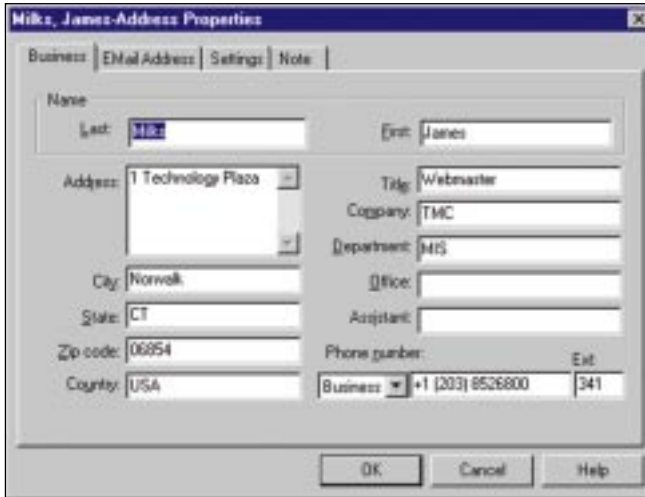
Figure 20. Personal Call Manager: Properties dialog box for a contact.

Figure 21. Personal Call Manager: Pop-up screen (with a generic picture) announcing an incoming call.
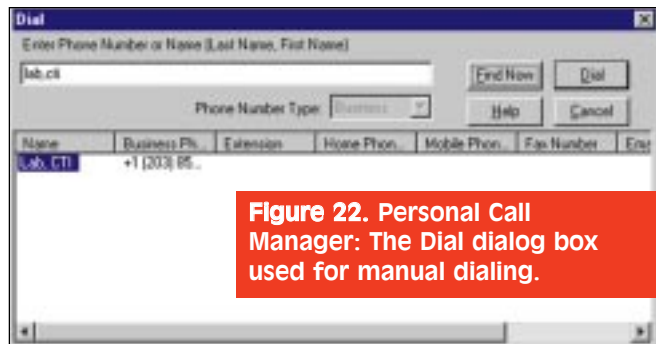
Figure 22. Personal Call Manager: The Dial dialog box used for manual dialing.

23. After the call was placed, a pop-up screen, accompanied by our selected sound file (over the speakers), informed us of the incoming call and the person that was calling. Personal Call Manager was able to use the caller ID information to match it with he person in our address book (Figure 21).

Dialing

One way to dial out is to double-click on a contact's name, an action that causes the number to be automatically dialed, or else the manual dial can be used. From the Calls screen, we clicked on the Dial button, and were presented with the Dial dialog box (Figure 22) to manually dial a certain number. We entered a number and clicked on the Dial button, but were given an error message complaining of no line to pick. Thinking that this was caused by our own error, we made several attempts with different number formats such as preceding the number with a 9 or the # character, but we were unsuccessful at all attempts.

We called the Nortel support team and quickly got an answer to the problem. In order for the dial to work, we had to set up a line pool access and set the line pool as the prime line on our particular extension (23). Doing so allows the extension to hunt for an available trunk line as soon as the phone goes off hook; otherwise, one must manually select a line to dial out. After reconfiguring the phone, we were able to dial out with no problem. We made several successful internal and external calls from the address book as well as the Dial screen.

PCM-Phone Coordination

There was no noticeable lag between the Personal Call Manager activity and the telephone set. When we used the telephone set to make an outbound call, the call session promptly appeared in the Calls screen together with the dialed number as if we had made the call directly from Personal Call Manager. The point here is that Personal Call Manager and the telephone set are quite aware of each others' activities. The call screen displays the names, numbers, and duration of all calls in progress. Right clicking on a particular call brings up a menu from which the call can be put on hold, brought into a conference, released, or transferred. The Properties item of the menu can be used to view the profile of the person whom the call refers to. If the call does not have a profile, the Properties menu can make one on the fly. These features can also be accessed directly from the menu once a certain call is selected. Releasing (hanging up on) a call can be accomplished from the Call screen toolbar as well.

One particular calling feature of Personal Call Manager that we liked was that, when we made a new call, received a new call, or activated an on-hold call, other calls (if any) would automatically go on-hold represented by a hand holding the calls in the Personal Call Manager. This is a great way of reducing confusion while juggling multiple calls. It is easy to deter-

mine exactly who is on hold and who is not at any given time, without having to remember which line they were on. All the features performed well, proving that call handling from the computer screen (if designed correctly) can be a lot easier than from a telephone set.

Call Conferencing

Once a call has been established, it can be moved into a call conference by simply dragging that particular call from the Calls screen into the Conference screen. This can also be accomplished by right-clicking on the call and selecting conference or picking conference from the menu. Up to 2 calls can be conferenced with a given extension providing for a 3-way conference call. We were able to easily establish a conference call by dragging 2 calls (one at a time) from the Calls screen into the Conference screen. Once the second call was dropped into the Conference screen, the conference call was automatically initiated, putting other calls in the Calls screen on hold. We were also allowed to bring more calls into the Conference screen. Each of the two calls automatically paired up into a conference call, but went on-hold as we already had a live conference in progress. Once we terminated the first conference or put it on-hold, the second conference went online.

Just like the Calls screen, the Conference screen was a great productivity tool in managing conferences

without any frustration. One improvement here would be to allow one to select multiple calls from the Calls screen to simultaneously drop into the Conference area rather than having to drag them one by one.

Reporting

Personal Call Manager provides a basic call logging and reporting facility, which simply displays itemized information on all incoming and outgoing calls to the extension number. The information includes name, phone number, date and time of the call, and the call duration (Figure 23). While we did not expect extensive call logging from Personal Call Manager, we believe that it can use some improvements. For starters, an export facility is sorely missing from the reporting module. That would allow a person to bring the data into a database (e.g., Access) for a more structured inspection. Other improvements would include the addition of filtering capabilities and a print facility.

Other Menu Options

From the menu one could activate DND (Do Not Disturb), set up call forwarding, and configure toll prefixes (for those particular exchanges where an area code needs to be dialed). The Dialing Properties menu item allows the user to configure the features and characteristics of the extension, such as the area code that the user is calling from, outside line dial code, and calling-card dialing (Figure 24).

ROOM FOR IMPROVEMENT

While Personal Call Manager is a powerful and user-friendly CTI product, the following are some improvements that we believe would make this product much stronger and more robust. (Keep in mind, the Personal Call Manager version that we tested was still under the beta release, and many of our issues may be addressed by the time you read this.)

We could not get Personal Call Manager to dial an extension following a main number. We tried to accomplish this by placing pause characters between the main number and the extension with no success.

Our Norstar-PLUS Compact ICS came with the StarTalk Flash voicemail system; however, there was no interface

Figure 23. Personal Call Manager: The report screen displaying outbound calls.

between Personal Call Manager and StarTalk Flash.

Although it may be argued that Personal Call Manager is strictly a call control product, having voice mail integration would make Personal Call Manager a more comprehensive CTI program.

And, finally, we hope to see TAPI 2.1 employed in Norstar products soon, as the currently supported TAPI version requires a TAPI box, which we find a distraction in deploying a CTI solution. TAPI 2.1 should resolve this by using the power and versatility of client/server networking (by using one telephony server in the network), making the TAPI box obsolete.

CONCLUSION

In our experience, large switch and telecommunications companies have always lagged behind the smaller and nimbler ones when it comes to CTI. Personal Call Manager is a leap of faith by Nortel into the CTI arena, and in

Figure 24. Personal Call Manager: Dialing Properties defined for the Norstar Telephony Service.

combination with the Norstar Compact ICS, we believe that it has a bright future. We loved the flexibility and the user friendliness of this product. It truly freed us from our telephone set.

Personal Call Manager still requires more improvements in order to become a product that you could not live without, but given its flawless grounding, we do not foresee any problems in making Personal Call Manager a formidable CTI product in a short time.

Email Reader

Millennia Software
14471 Basin Way
Saratoga, CA 95070
Ph: 888-362-4573
E-Mail: sales@msw.com
Web Site: www.msw.com
Price: $90

Millennia Software's Email Reader gives you access to your e-mail from anywhere, just by having access to a phone. That is, simply dialing into your computer lets you retrieve your e-mail which your computer reads back to you using Email Reader's text-to-speech technology.

Email Reader also features speech recognition, which allows you to speak commands into the phone rather than pushing digits on a touch-tone phone to execute commands. Email Reader uses VoiceLINK, which is built on the TAPI and SAPI standards for performing speech recognition, text-to-speech conversion, and voice modem communication.

INSTALLATION

We originally tried using a generic internal voice-enabled modem, but the installation program did not support that particular modem, forcing us to quit the installation program. Before exiting the installation program, we were presented with a list of supported voice-enabled modems. Fortunately, we had a spare external modem which was on the supported list. We hooked up the external modem, a Hayes Accura 33.6, to COM2 and re-ran the installation program. After that everything went smoothly.

DOCUMENTATION

There was hardly any written documentation — just the online documentation and help files contained on the CD-ROM. However, a quick reference guide of the commands is included, and it is small enough to keep in your wallet. The online help within the program was fairly complete. Documentation was given a 3.5 rating.

FEATURES

Millennia's Email Reader offers the following features:

- List the attachments for the current message.
- Faxes either the current message or all your unread messages.
- Mark a message as read (so it won't appear in the unread mail list).
- Toggle between showing all messages and showing all unread messages.
- Works with any POP3 compliant e-mail client, such as Microsoft's Exchange, Qualcomm's Eudora Pro, or Netscape's Netscape Mail.
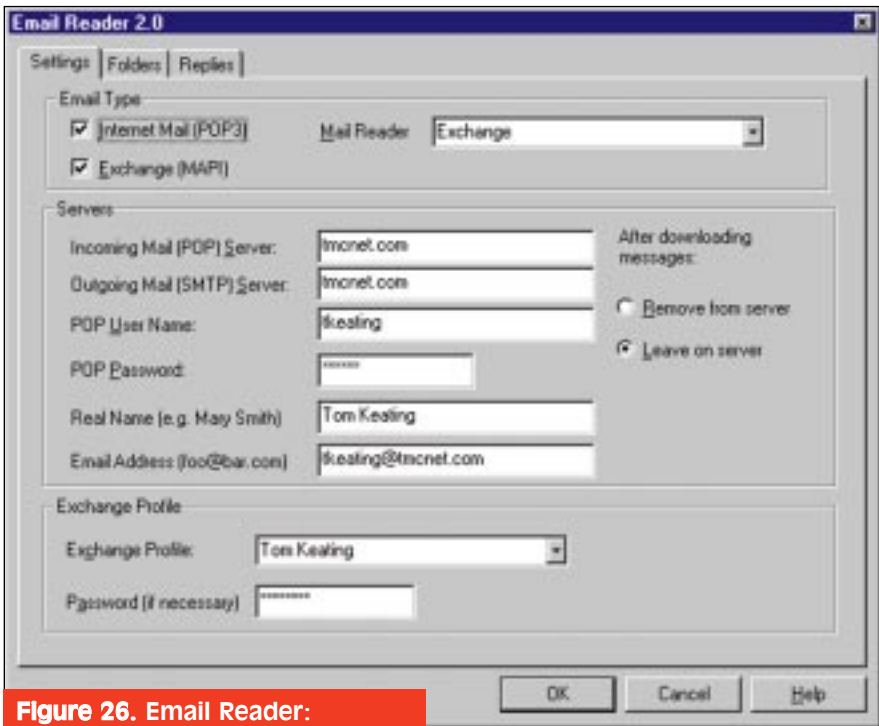
MULTICALL 4/C

RATINGS (1-5)

Installation: 4.0
Documentation: 3.5
Features: 3.75
GUI: 4.0
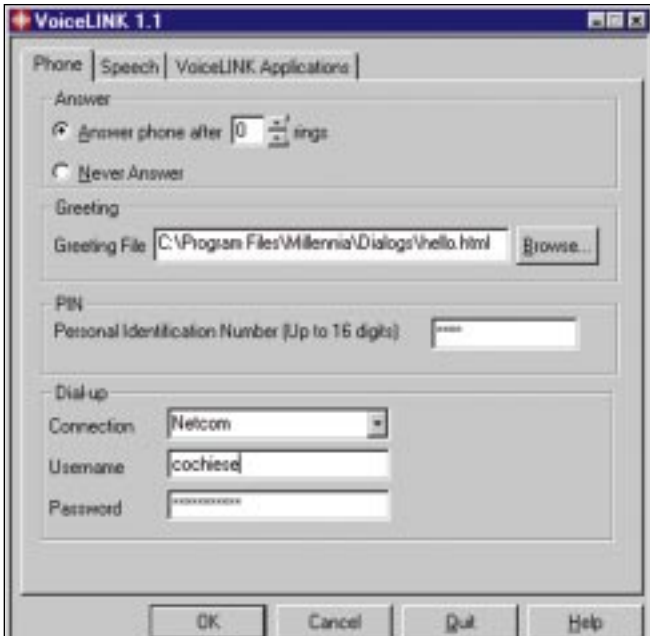
Figure 25. Email Reader: Configuring the dial-up connection for Internet e-mail retrieval.

Figure 26. Email Reader: Settings folder for integration with Exchange.

OPERATIONAL TESTING

We set up the VoiceLINK software to pick up as soon as the phone rang, and configured the dial-up connection for retrieving our Internet e-mail (Figure 25). Several text-to-speech voices are available, either male or female, but we decided to stay with the default setting. The

remaining configuration that we needed to address was Exchange integration. The GUI was very user friendly, making it easy to configure (Figure 26).

We dialed into our Hayes Accura voice-enabled modem hooked up to our Pentium-90, and the modem picked up on the first ring. We were greeted by a voice prompt, and we entered our PIN code. We proceeded to log in to our Exchange mailbox by speaking the command, "Go to Email Reader." This is where we discovered a flaw.

On the screen, we noticed a dialog box for our "Personal Folders" pop up on the screen, waiting for user input. We were asked to manually enter our password before we could continue with our testing. We checked the online help and found that we had to click on "Remember password" so that the Email Reader program could access our

Personal Folders. There's only one problem with this. If we do that, then anyone can access our e-mail without entering a password. So much for security! This is definitely something which should be addressed in the next release.

In any event, after entering the password, we executed some voice commands. The program read our new e-mail back to us, and we were impressed with the text-to-speech algorithm. E-mails with a lot of header information (such as Internet e-mail or forwarded e-mail with address information) require that you ignore lots of unimportant information. We listened to a bunch of test e-mails and, in most cases, the text-to-speech algorithm did a very good job of translating the e-mails.

After listening to an e-mail, you can either fax the e-mail, reply to the e-mail using a "canned" text reply, or record a reply. Using a canned text reply is pretty straightforward, and it's easy to add new canned text replies using the Replies interface (Figure 27).

Voice-recorded replies are a great feature. After choosing a voice-recorded reply, you record your message, and the Email Reader does the rest. It takes the voice recording, attaches it as a .WAV file (Figure 28), and sends the reply (via Exchange) to the sender of the original message. Using a multimedia PC, the recipient can then listen to your reply.
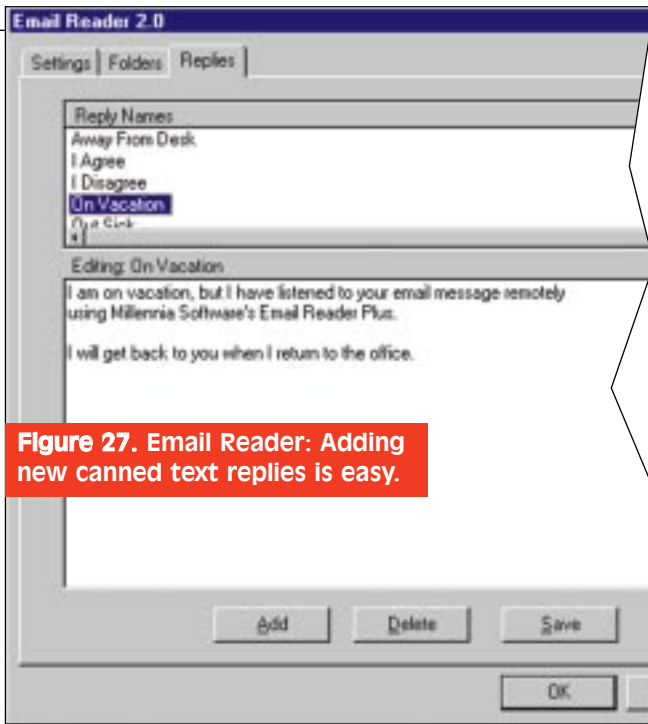
ROOM FOR IMPROVEMENT

After replying to just one message, the system hangs up the line, which, to us, doesn't make much sense. The system should allow you to read and reply to multiple messages without hanging up. The voice recognition was good, but sometimes we had to repeat ourselves before the system recognized what we were saying. This product would benefit from a "training" feature. This training feature would have you speak specific command words into Email Reader to train it to recognize your voice commands more accurately.
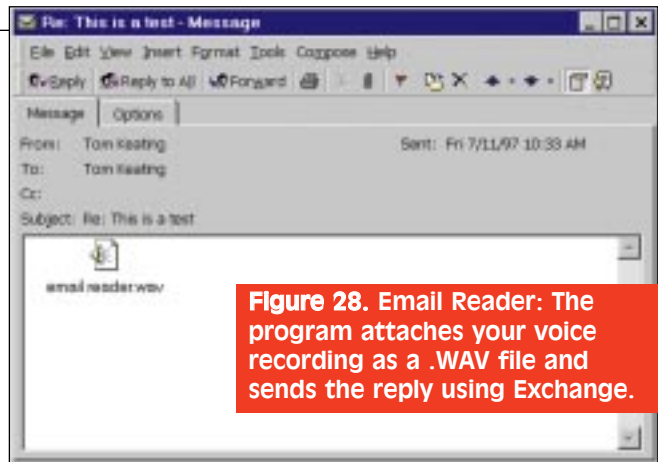
Another thing we'd like to see is the ability to change to a different folder in our Exchange Inbox. Currently, you can only have Email Reader access the "Inbox" folder. Finally, we'd like the ability to read messages which have been viewed already. Email Reader only allows you to have new (unread) messages read back to you. You can, of course, mark all messages as unread to be able to read old messages, but that's more of a "hack" than a good solution.

Figure 27. Email Reader: Adding new canned text replies is easy.

Figure 28. Email Reader: The program attaches your voice recording as a .WAV file and sends the reply using Exchange.

CONCLUSION

Email Reader is great for road warriors, who need access to their e-mail, and always have a phone handy. The product allows you to listen to new e-mails, but could benefit from the ability to listen to old e-mails. Using Email Reader means you no longer have to lug a laptop around to access your e-mail. Remote access to e-mail is becoming increasingly important, and this product addresses that need.

System Requirements

- Pentium processor, 75 MHz.
- 15 MB free hard disk space.
- A voice modem with an installed Unimodem V driver.
- 16 MB RAM.
- Microsoft Windows 95.
- Microsoft Windows Dial-Up Networking (included with Windows 95). ■

INT. COMPUTER MARKETING (ICM) BW

WinFax PRO 8.0

Symantec
10201 Torre Avenue
Cupertino, CA 95014-2132
Ph: (408) 253-9600
Fx: (408) 253-3968
www.symantec.com
Price $99.95

I f you are in the market for a lean, efficient, and feature-rich SOHO communications product, we think you will be as impressed as we were with Symantec's WinFax PRO 8.0. In fact, the only major problem we could find with this product was its name, because we believe that it does not do

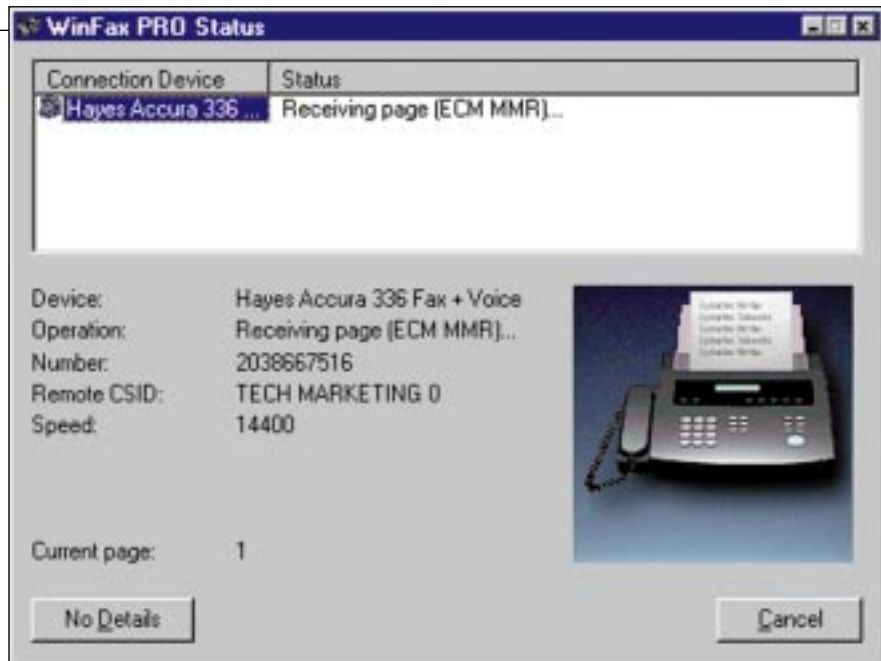Figure 30. WinFax PRO: Status screen detailing reception of a fax.

justice to the product's capabilities. WinFax PRO 8.0 is much more than fax software — it is a total communications package, which is easy to install and a pleasure to use. WinFax PRO has come a long way in the past few years since it was strictly a PC fax transmission package (as a Delrina Corporation product). Though still a fax product at heart, WinFax PRO has matured into an impressive communications tool, providing the end user with an array of powerful and flexible features to get in touch and stay in touch.

DOCUMENTATION

WinFax PRO comes with a user's guide covering installation; sending, receiving, viewing, and annotating

faxes; managing faxes and logs; and TalkWorks. The manual is also available in Adobe Acrobat format on the CD ROM.

We found the manual very useful in getting started with WinFax PRO, but by no means did the manual cover every aspect of the program. The online help was complete and accurate, but context-sensitive help was not available in all modules.

INSTALLATION AND OPERATIONAL TESTING

For our test platform, we used a Pentium 75 PC with 16 Megabytes of RAM running Windows 95. We connected a Hayes Accura 33.6 Fax Modem With Voice to the PC. Since this was a voice-capable modem, multimedia sound drivers were automatically installed as a part of the installation; however, we noted that only ADPCM type files could be played on this modem. In order to play other types of sound files (e.g., .WAV files) a sound card would be required. Hoping that we could get away without a sound card, we decided to install WinFax PRO at this point.

The WinFax PRO installation was simple and trouble-free. The first screen gave us options to familiarize ourselves with WinFax PRO, consult the online manuals, receive an online tutorial, and others, including the option to install the program. We got right down to the product installation and chose Custom installation, which
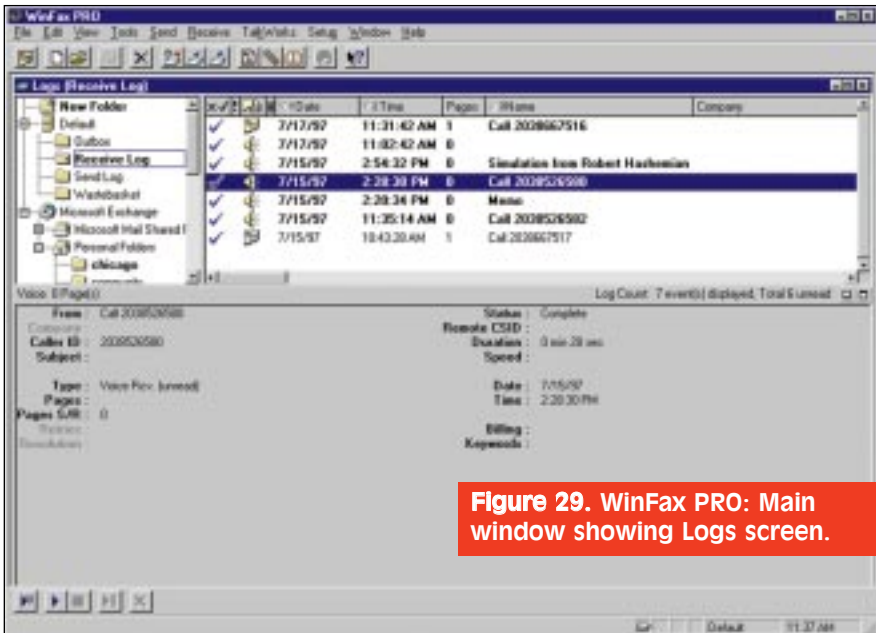
Figure 29. WinFax PRO: Main window showing Logs screen.

gave us options to install WinFax and TalkWorks. We picked both products, supplied a few pieces of information, and the installation got on its way.

The installation procedure was able to correctly identify the modem and the fact that we were using Microsoft Exchange. It asked us if we wanted WinFax PRO to integrate with Microsoft Exchange and inquired about the Exchange profile to be used.

We performed a reboot and, upon startup, noticed the WinFax PRO tray icon. Right-clicking on the icon presented us with a menu to access several modules of WinFax PRO such as sending a fax, WinFax PRO main program, telephone, and answering machine. There was also a menu item to quickly access new messages in the Receive Log folder. We double-clicked on the icon and were presented with the WinFax PRO's main window (Figure 29), the nerve center of WinFax PRO.

Main Window

This window had a subwindow, titled Logs, within which there were 3 panes. On the top left pane we had the folders in an Explorer-like format. The Default folder contained the WinFax PRO specific subfolders which include Outbox for outgoing faxes, Receive Log (which is the equivalent of Inbox), Send Log to keep a log of all sent faxes, and the Wastebasket folder. All the sent faxes are placed in the Outbox folder before transmission and moved over to the Sent log subfolder after the transmission, while received faxes and voice messages are placed in Receive Log subfolder. The other main folder in our case was the Microsoft Exchange folder, which was integrated into WinFax PRO as we had requested during startup.

We were very impressed with the layout of this window as it allowed for unified messaging capability. The idea here was to be able to access all types of personal communications (e-mail, fax, voice) from one location. At the top of the list of folders there was an entry marked "New Folder," which could be

double-clicked to create new folders. We liked this small feature, since it allowed us to quickly create new folders without having to select a menu item or right click anywhere. To the right of the folders screen, the contents screen displays the contents of each particular folder. For example, in the case of the Receive Log folder, voice and fax messages are displayed, and for Exchange folders e-mail messages are shown. The bottom screen displays detailed information about the individual item selected from the contents screen.
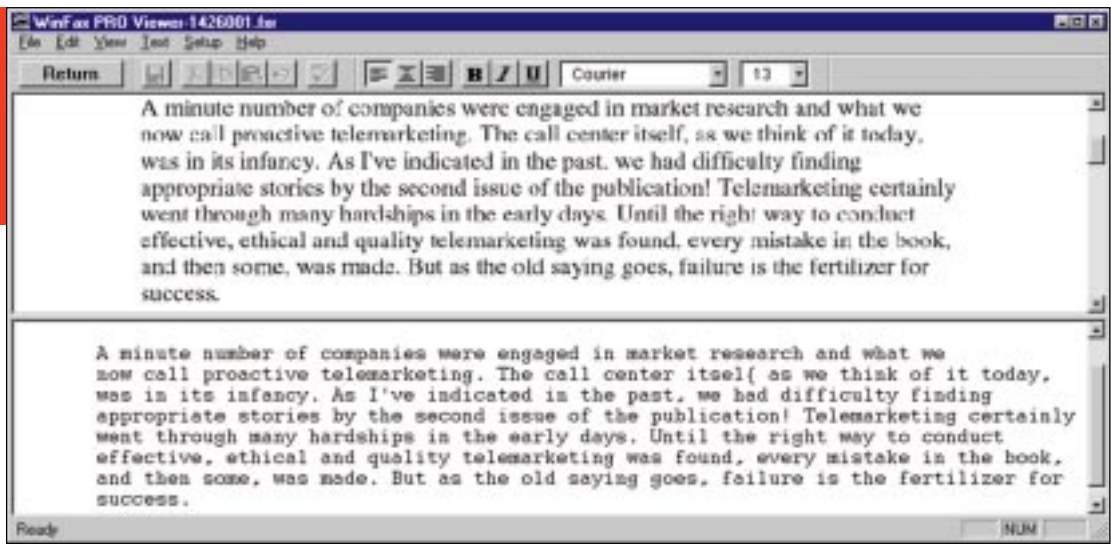
Configuration

For faxing we could set the number of rings and the schedule for the modem to pick up, set up rules to forward faxes upon arrival, and define dialing properties for outgoing faxes. For voice messaging (TalkWorks mod-

IML, INC. BW

ule) we could set
several profiles to
activate depend-
ing on the time of
the incoming call,
high and low time
limits on messages,
and mailboxes
(folders) to store
the messages.

Receiving Faxes

We accepted the default values
and sent a fax into WinFax PRO. The
incoming fax woke up the pro-
gram, which displayed a dialog box
showing its progress as it accepted the
call (Figure 30), received the fax, and
terminated the call. After the fax trans-
mission was completed, a flashing icon
in the task bar alerted us of the new
arrival. The fax message was quickly
delivered to the Receive Log folder
together with its associated information
such as the caller ID, time of arrival,
and the number of pages. A distinctive
icon was attached to this newly arrived
item to indicate a fax message (rather
than voice message).

We double-clicked on the fax mes-
sage, and WinFax PRO presented us
with WinFax PRO Viewer to view the
fax. WinFax PRO Viewer is an impres-

sive program for viewing and manipu-
lating incoming faxes. We liked the
hand icon, which allowed us to smooth-
ly pan through the fax (using the mouse
button to grab the page) without having
to use the scroll bars.

Tools to help clear up or modify the
fax image include rotate, zoom, align,
and shade. There is even a grid option
allowing the user to snap objects to the
grid points to tidy up a crowded fax.
There are also tools to annotate faxes
with graphical objects, such as lines
and circles, pictures, text, pre-designed
stamps, and OLE objects.

Another feature of the WinFax PRO
viewer that we really liked was its OCR
(Object Character Recognition) module.
It did a great job in recognizing our sam-
ple fax letter and presented the results to
us in a window just below the original
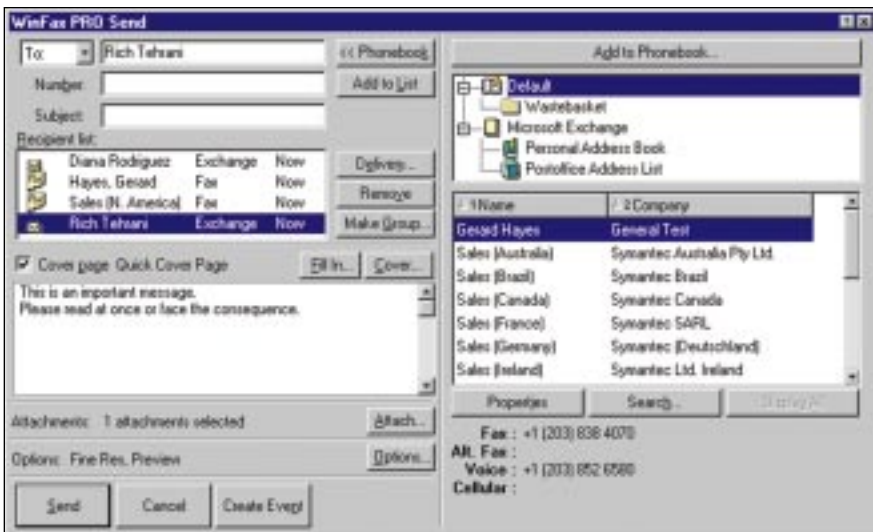fax window (Figure 31). We could then

make corrections to the document and
save it as a file. The Export option
allowed us to save the faxes under sever-
al formats, including .TIFF, .BMP, and
.PCX. There was also a Send option to
forward the fax to the next person after
we were done reading and annotating it.

Sending Faxes

If the Send Fax Wizard is enabled, the
user is guided through a multi-step
process to prepare and send faxes from
WinFax PRO. More experienced users
can turn off this feature and send faxes
directly from the Send screen. We
turned off the Wizard from the Help
menu and started the WinFax PRO Send
Fax from the toolbar. This presented us
with the Send dialog box, which con-
tained several fields we needed to fill
out to prepare the document and to set
up the recipient list before sending out a
fax (Figure 32). One of the great fea-
tures presented to us here was the abili-
ty to set up the recipient list as a mixture
of fax and e-mail addresses from the
WinFax and Exchange Address Books.

We liked the fact that we could set up
individual delivery times for each per-
son in the list or set a general time for
the fax to be delivered to the entire
group. We then clicked on the Cover
button to set up the cover page and we
chose an existing cover page from the
list presented to us. We were also able
to quickly type a note in the Note sec-
tion of the Send screen, which was
placed in a special section within the
cover page. We could also use the Fill
In option to customize the cover page
to our specifications.

Next, we clicked on the Attach button

Figure 33. WinFax PRO: Phonebook screen.

Figure 34. WinFax PRO: Recipient Properties from Phonebook.

to add a document to our fax. To quickly add attachments, the user can set up a library of folders with specific attachment files (converted to fax format, if specified) to be included with the fax. We didn't have a library set up, so we attached a Microsoft Word file to the fax and clicked on send. Since we had chosen not to preview the fax, the transmission got on its way with a window indicating the progress as faxes were being delivered. WinFax PRO does not deliver the cover page to the e-mail recipients; however, the note and all the attached files were promptly sent to our selected e-mail addresses, and the fax contacts received their faxes successfully. Since

we had requested that all transmissions be logged by WinFax PRO, we found a record of this fax in the Send Log folder. The only problem that we found within the Send module was that some of the entries in the Exchange address list would oddly go blank, or worse, they were mapped to other names causing a bit of confusion in building a recipient list. This seemed like a software bug that could be easily patched.

Phonebook

The Phonebook furnished with WinFax PRO has the same type of window (in terms of look and feel) as the main screen (Logs screen) of the product

(Figure 33). The folder pane contained two main folders, the Default and the Microsoft Exchange folders. The Default folder contains all the WinFax PRO specific entries which include subfolders and the names of the contacts to whom we would fax documents. The Exchange folder, which was integrated with the Phonebook (as requested during installation), contained the personal and post office address list for contacts to whom we would e-mail documents. As with the Logs screen, we loved this integration because it brought all of our internal and external fax and e-mail contacts under one application. To the right of the folder pane there was the contents pane displaying all the items within a selected folder. And on the bottom was the detail screen displaying information about a selected entry in the contents pane.

Adding new folders or new contacts (recipients) was a breeze: we just double-clicked on the New Folder or New Recipient entries. To add a new recipient, a dialog box is presented to collect information about the contact such as name, address, phone and fax numbers, and e-mail (Figure 34). Right-clicking on any entry presented us with a menu to take several actions for the entry, including removing, editing properties, and adding the entry to a group. One function we were unable to perform was dragging and dropping items from the Default folder into the Exchange folder and vice versa. This can be a useful feature when one needs to quickly add a fax contact to the Exchange list so the contact can be accessed via e-mail as well. We also could not figure
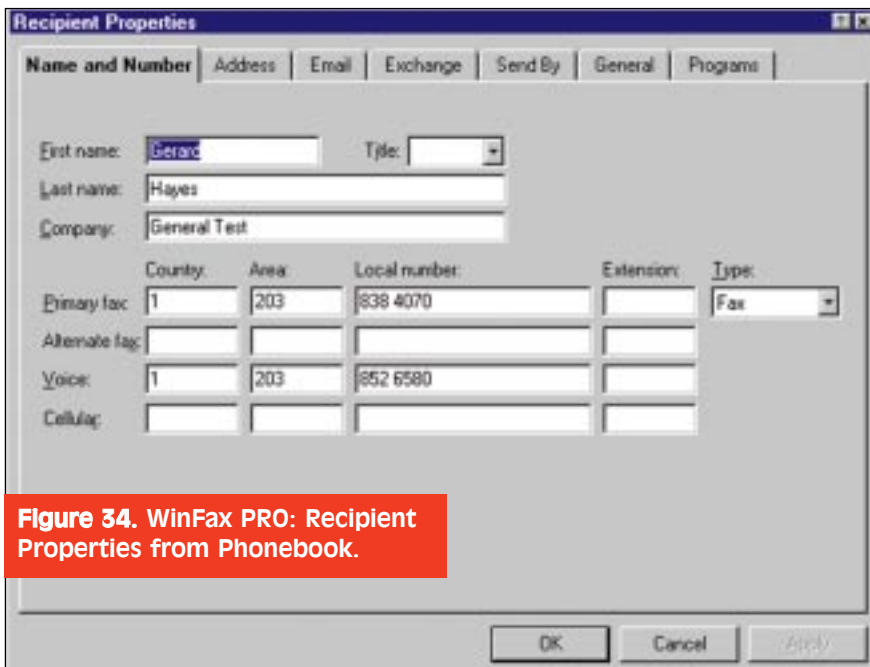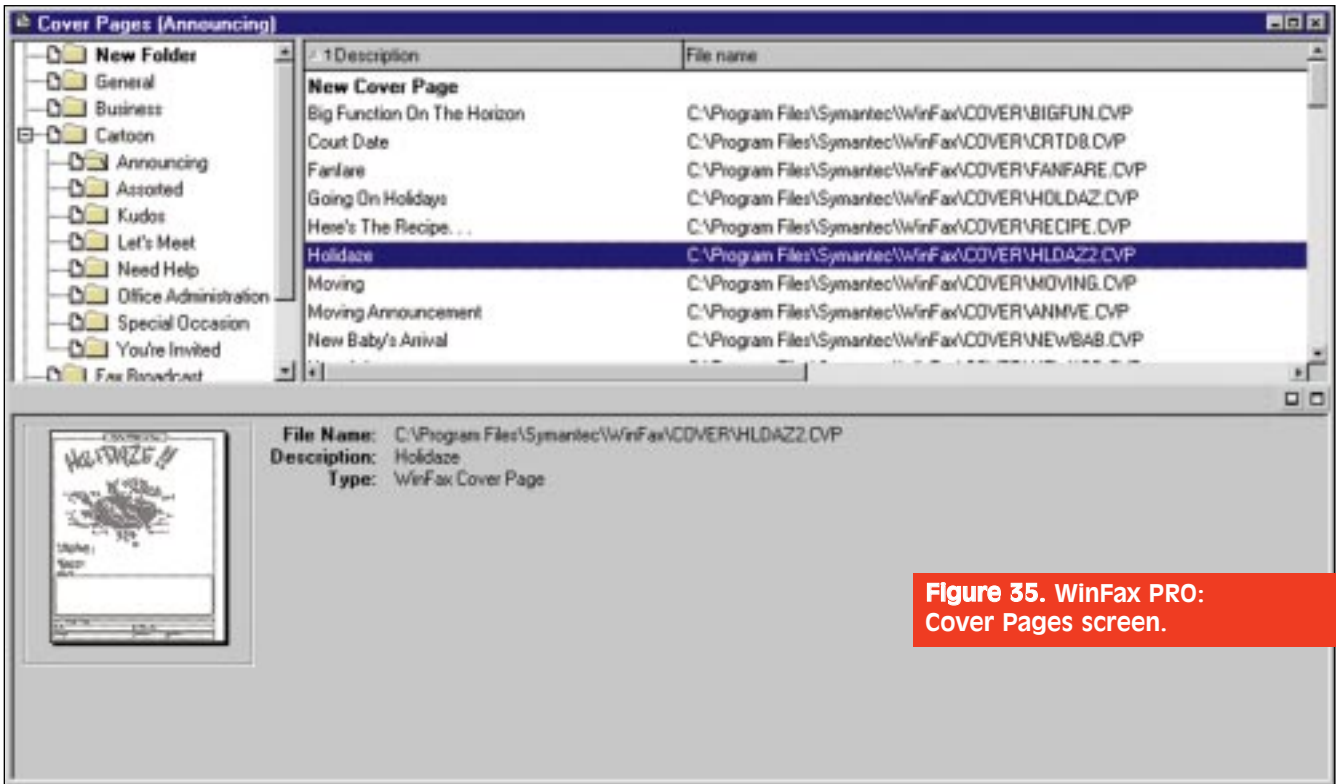
Figure 35. WinFax PRO: Cover Pages screen.

out why there was a CSID (Calling Station Identifier) present for each entry. At first, we thought that this field might have been used to identify the caller (voice or fax) by matching it to the caller ID information, but we found out that this was not the case. A call to

Symantec support revealed that this field had no apparent use, so we hope that future versions of WinFax PRO will use it to identify callers.

Phonebook also has options to import and export entries from several types of data storage formats, as well as text, so populating the folders can be a quick job if the contact data is available in a recognized file format.

Next, we looked at setting up attachment libraries with WinFax PRO. The Attachments screen had the same consistent look as the Logs and the Phonebook screens with the attachment folders, contents, and details panes. Attachments can be set up as preconfigured for faxing or as their original formats.

When a document is preconfigured for fax, it is converted to fax format, saving time when it is included in faxes. In contrast, if the attached document is not preconfigured, it must be converted to a fax format each time it is faxed from WinFax PRO. The former method is used for frequently faxed documents that are never modified, and the latter method is used for documents that are frequently modified. As stated before, one could attach any file to an outgoing fax from the Send dialog box.

Cover Pages

The Cover Pages screen (again with the same consistent look) provided us with plenty of pre-existing cover pages to choose from (Figure 35). As usual, there were folders, contents, and details panes to facilitate the organizing and cataloging of cover pages. When starting a new cover page design, the cover page Wizard (if enabled) is activated and takes the user through several screens to construct a cover page. To design more elaborate cover pages, the Cover Page Designer is used.

We found the Cover Page Designer chock full of text and graphical tools, making cover page design quick and
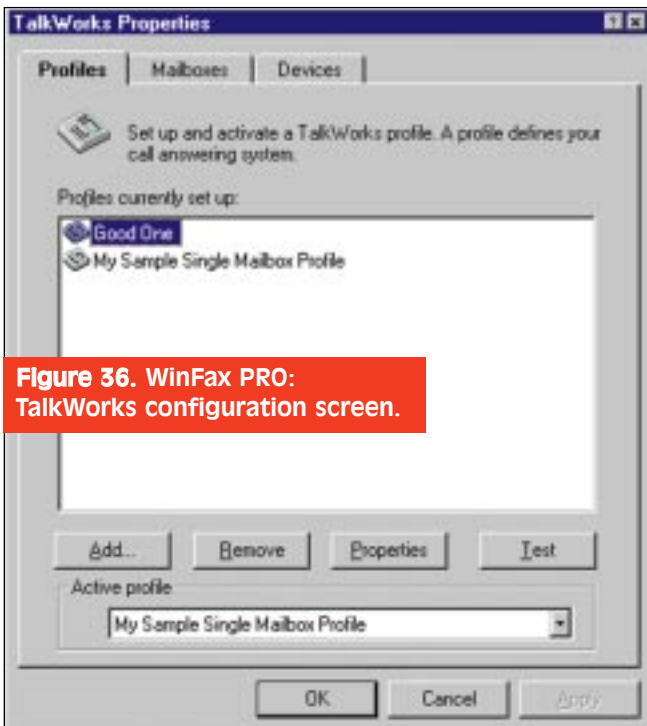
Figure 36. WinFax PRO: TalkWorks configuration screen.

painless. We found the best way to design cover pages is to use the Wizard to build the basic layout followed by the Cover Page Designer to put in the finishing touches. The cover pages are saved as individual files; therefore, in a company, they can be saved in a shared subdirectory to allow access by all staff.

We were truly impressed with the consistent and user-friendly look and functionality of the Logs, Phonebook, Cover Page, and Attachments screens. It took little time for us to learn our way around these modules and use them effectively without consulting the manual or help screens. Having said that, we'd like to warn those who do like to delve into manuals that there is scant information on the Phonebook, Cover Page, and Attachments modules; however, the help screens were adequate.

TalkWorks

TalkWorks is the voice mail (or answering machine) module of WinFax PRO. Without configuring TalkWorks, we made a call into WinFax PRO and ignored the telephone set when it began ringing. After 4 rings, TalkWorks kicked into action and emitted a long beep (without any announcements) signaling the beginning of the message recording. A voice mail screen popped up on our PC displaying the TalkWorks activity, and after we left a message and hung up the phone, a dialog box indicated that a new voice message had arrived. The newly recorded voice message was placed in the Receive log and tagged with a distinct icon indicating a voice message. There were also associated information such as caller ID, time, and duration.
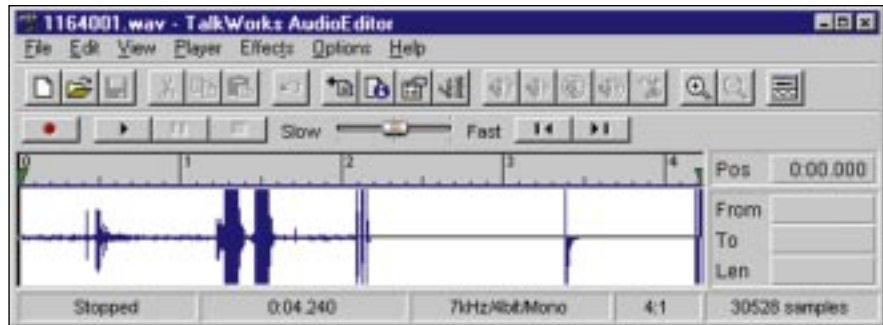
TalkWorks is a powerful module, which could certainly stand on its own as a separate application from WinFax. Several types of mailboxes can be set up using TalkWorks to satisfy most any request. Traditional mailboxes can be set up to greet the caller and take messages, while announcement mailboxes play a message and hang up. Mailboxes can also be configured to provide fax-on-demand services, allowing the caller to navigate a menu and select a document for faxback.

From the TalkWorks menu in WinFax PRO, we chose Setup to configure our answering service. This presented us with a tabbed dialog box with Profiles, Mailboxes, and Devices tabs (Figure 36). Creating a new profile was simple. Using the Wizard-like dialog boxes helped us create a menu system containing voice, faxback, and data mailboxes. Along the way, we were able to set greetings, schedules, and logging for our mailboxes and finally we set this profile as the active profile for TalkWorks.

The Devices tab allowed us to select a primary modem and recording and playback devices, which, in our case, was the Hayes modem. From the Profiles tab we used the test button to activate the simulator, a program which can simulate a phone call into TalkWorks. We were able to successfully navigate our menus and leave messages. New messages are stored in the Receive Log folder and can be directly accessed by the user.

For those who prefer communications devices with a more traditional look and feel, TalkWorks comes with a graphical Telephone and Answering Machine (Figure 37) to make calls and check messages. There is also a Memo menu item to leave messages in the Receive Log Folder as reminders. One can also remotely access the voice mail

and fax messages from another phone and issue commands such as message playback, change password, and change greeting. Using the Receive menu item, we were able to configure message reception in more detail. Some of these settings included compression formats, message number limits, call screening, and message notification.

TalkWorks also comes with a sound editing program, AudioEditor, which lets the user manipulate the .WAV sound files in several ways by modifying attributes such as volume, echo, and speed (Figure 38).

Other

Some other features of WinFax PRO we really liked were dual modem support, TAPI compatibility, Internet fax interface, network fax support, and macros to add a fax command to other programs, such as Microsoft Word.

Room for improvement would include Windows 3.1 support and full integration with Exchange folders rather than having separate WinFax and Exchange folders.

CONCLUSION

WinFax PRO is a comprehensive and flexible communications product that fits perfectly in the SOHO arena. It is a one-stop shop for all types of communications — e-mail, voice, and fax — and includes many tools (e.g., OCR, Sound Editor) to facilitate multifaceted communications. We recommend WinFax PRO to anyone interested in giving their SOHO a better (or larger) image, while saving time and money in the process.

Editor's Note:
WinFax PRO version 8.01, which is available on Symantec's Web site, fixes bugs associated with version 8.0. You can download it using the LiveUpdate item of the Help menu. ∎