



# R E V I E W

Issue No. 66 - December 1, 1992

WinOnline

7672676

Prefix 1

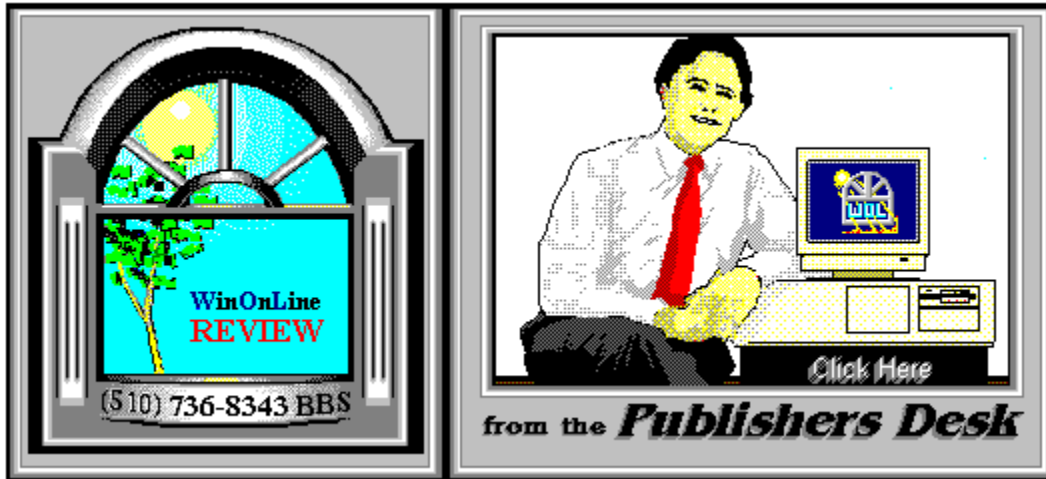
CD QUALITY SOUND

*MultiMedia*

lity Intel FA  
y Intel FAX  
lity Intel FA

M.DIAL

Workgroups



*(Click Above For Table Of Contents)*

## About **Windows OnLine™**

**Windows OnLine™** is an on-line (modem) service dedicated to supporting Windows users and Windows network professionals. **WOL** prides itself on having the most complete and up-to-date library of Windows shareware in the world. We have over 8,000 Windows 3.x programs and files to download. With **13** phone lines, (all equipped with **US Robotics high speed dual standard modems**), operating 24 hours a day, 365 days a year... there are no busy signals.

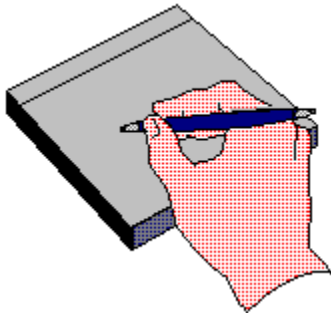
**WOL** is growing rapidly with **thousands of callers** directly using the service. We advertise in national publications as well as several computer newspapers. **Call today for your free trial** and see why **WOL** is the ***Worlds Premiere Windows On-line Service.***



About **Windows OnLine™** **REVIEW**

The **WinOnLine™ REVIEW (WOLR)** is an electronic magazine that is distributed worldwide to major on-line services on the 1st and 15th of each month. It is estimated that each issue is read by 50,000 on-line and network users. (It is reported that there are over 40,000 BBS's in the USA alone as of 1992). This unique creation is actually a Windows HELP file. All Windows users can view it with its **hypertext, built-in search, and pop-up color graphics.**

The **REVIEW's** articles are limited in scope to allow us to present our readers both a diversity information and to maintain a manageable file size. Subject matter includes all aspects of Windows and its associated applications and utilities. Also covered are, Industry and New Product News, Communications and other GUI subjects, etc.,.



*Why not*

## **Write for the REVIEW**

Do you like to test shareware programs? Do you enjoy giving opinions on the latest commercial Windows software? Do you have an interest in Windows software, hardware, programming, etc., and the time to write an article or review? Do you like working with graphics? We are interested in adding a few quality Freelance writers for the **WinOnLine™ REVIEW.**

Freelance writers can submit their article whenever they wish and are only required to include a .RTF or .DOC file and the .BMP graphics for their article. We will prepare your help file for you. **You can become part of our publication, so call us today.**

The **WOLR** pays a fee for each article we publish. Why not get both, publicity for yourself, and cash to spend. ***Give your writing career a kick in the pants!*** For complete details on how you can become a paid writer, download our **WRITERS GUIDE** named **WOLWG11.ZIP**. It is available for download on many BBS's around the world and on CompuServe. You can also download it directly from **Windows OnLine™ (510) 736-8343** (modem).

Rich Young - Editor



## Copyright © Information

The **R**EVIEW is a product of,

**Windows OnLine™**, no reprinting of any portion of this publication is permitted without the express written permission of Frank J. Mahaney of **Windows OnLine™**.

Sysops and Corporations **may freely offer the .ZIP file for download** by their users. You **may not display the contained .HLP file** as bulletins, news, help files, etc., on any BBS or network, nor are you permitted such reprinting or display of these files, except as otherwise expressly granted, in writing, by **Windows OnLine™**. Subscriptions are available to Corporations who wish to offer the HLP file on their Windows Networks. For subscription information call our voice number (510) 736-4376.

All articles are copyrighted by their authors and upon publication all rights are sold to and owned by **Windows OnLine™**. Opinions presented herein are those of the individual author and do not necessarily reflect the opinions of **WOL** or the **REVIEW**.

**Windows OnLine™**

(510) 736-8343 bbs

(510)736-4376 Voice/Fax

Copyright Notice: The entire contents of this issue and all issues of the REVIEW are copyrighted by Windows OnLine and Frank J. Mahaney  
All right reserved Copyright © 1992, Windows OnLine



***Call Windows OnLine™ Today!***

**(510) 736-8343 BBS**

***Call Windows OnLine™ today!***

**(510) 736-8343 bbs**

**Frank J. Mahaney**

**Publisher**

**(510) 736-4376 Voice/Fax**

**Windows OnLine™**

**Box 1614**

**Danville, CA 94526-6614**

**Copyright © 1992, Windows Online™**



Barry Seymour  
Bob Gollhur  
Hugh Hardie

Publisher : Frank Mahaney  
Editor : Rich Young  
Graphics and Design  
Derek Westfall Randy Wong

Darrell Poteet  
Scott Drassinower



## Slow and Easy - **OR** - Cash in the Bank

by Frank J. Mahaney

As a System Operator of a large bulletin board, we experience many on-line callers with modem problems. The most common cause of their problem is that they do not have their modem and/or communications software setup correctly to communicate efficiently. In many cases reading the manual is all that it takes. The second problem is that they do not have a quality modem, that is, they do not have a modem that will give reliable connections and file transfers consistently day after day. The third problem is that most callers have not yet purchased one of the new high speed 14,400 bps modems. This is a problem because they want to download a great deal more than they can get with a 2400 bps modem. Thus, these callers feel the pressure of phone charges mounting while they wait for file transfers to finish.



Are there solutions to these problems?

You bet there are!

For approximately \$350.00 you can buy a top quality 14,400 bps modem, that also includes a built-in fax. The modem I am speaking of will solve all of the above mentioned problems.

I know this sounds like a commercial to buy a modem from me. I can tell you that this



commentary did not start out with that intention, but it is a good idea.



Consider how many items we purchase in our lifetime that actually will save us some real money. How many will actually bring us a return. Your family car? Nope!!! Almost all the contents in your home? Nope! Though, some collectibles will bring a return, but very few. Point is we all tend to purchase goods that we use up and throw away as worthless.

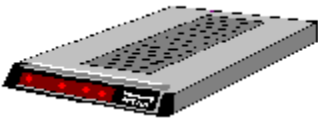
Computer equipment and in this case the high speed modem, can really pay off financially. Consider how much more you can do with your computer and the investment you have in it if you have a fresh supply of new and useful software for it. Consider how expensive it is to purchase commercial software. O.K. you know all that. you already call bbs's and pickup free PD, Shareware, utilities, drivers, fonts, etc.,. What most of you do not yet realize is how many more Windows programs you could be getting and all at a much lower cost than you are paying now.

Lets look at the numbers. Using SPRINT I get the best rates by calling during the hours of

11:00 PM to 8:00 AM all Weekdays  
11:00 PM Friday to 5:00 PM Sunday  
11:00 PM Sunday to 8:00 AM Monday

anywhere in the USA (outside of my home state) for about 11 cents a minute.

By the way, all of **WOL's** phone lines are Sprint and they offer up to a 36% discount to their customers, in some cases, if you call other Sprint customers (**WOL**). Check into it.



A 14,400 bps modem will average about 1650 cps transfer rate on pre compressed files (.ZIP files) while a 2400 bps modem will average about 230 cps transferring the same file. That makes the 14.4 modem 7.17 times faster than a 2400 modem.

Lets assume you want to call us in California and want to pickup 15 new programs from us a week.

**A 14,400 modem will transfer an example file of 300 kb in 3.03 minutes**  
(using 1650 cps avg.)

Over a year we are saying that you will want 15 new files a week or 780 files a year.

$780 \text{ files} \times 3.03 \text{ mins.} \times .11 \text{cts. per minute} = \$259.97 \text{ phone company charges.}$

Adding the time it takes to log-in and select the files, etc., my guess is that you will spend something over \$400.00 total a year on your long distance bill to get those 780 Windows Programs from across the country via a 14,400 bps modem.

Assume further you must pay a membership fee of aprox. \$100.00 annually to WOL or one of the other fine bbs's around the country. You therefore are buying some on-line fun and 780 programs for about \$500.00 total per year. That comes to **.56 cents per program.**

**A 2,400 modem will transfer the example file in 21.7 minutes**  
(Using 230 cps avg.)

Over a year we are saying that you will want 15 new files a week or 780 files a year.

$780 \text{ files at } (2,400 \text{ bps}) \times 21.7 \text{ mins. each.} \times .11 \text{ cents a minute} = \$1,861.00 \text{ phone company charges.}$

Adding the time it takes to log-in and select the files, etc., my guess is that you will spend something over \$2,000.00 a year on your long distance bill to get those 780 Windows Programs from across the country via a 2,400 bps modem. Assume further you must pay a membership fee of aprox. \$100.00 annually to WOL. You therefore are buying some on-line fun and 780 programs for about \$2,100.00 total per year. That comes to **\$2.69 cents per program.**



**Numbers in comparison:**

<b>Modem</b>	<b>2400</b>	<b>14,400</b>
<b>Files</b>	<b>780</b>	<b>780</b>
<b>Time Per File (Mins.)</b>	<b>21.7</b>	<b>3.03</b>
<b>Time for all 780 files (Mins.)</b>	<b>16,926</b>	<b>2,363</b>
<b>USA Phone Costs per min.(est.)</b>	<b>.11</b>	<b>.11</b>
<b>Annual phone costs</b>	<b>\$1,861.00</b>	<b>\$259.97</b>
<b>Extra on-line time (plug number est.)</b>	<b>\$139.00</b>	<b>\$140.03</b>
<b>Annual bbs subscription (est.)</b>	<b>\$100.00</b>	<b>\$100.00</b>
<b>Total Cost</b>	<b>\$2,100.00</b>	<b>\$500.00</b>
<b>Difference per year</b>	<b>\$1,600.00</b>	
<b>Est. Cost of a 14,400 modem</b>	<b>\$350.00</b>	

**The payback of buying the 14,400 modem is 2.62 months.** That is, you will get all your purchase price returned in phone cost saving in that amount of time.

If you monitor your downloads, also consider that you will save 16 minutes TIME, per download over that compared to the time spent downloading at 2,400 bps. 16 minutes times 780 files = 208 hours time saved. That's 8 1/2 days of your life each year.

You may feel that YOU will not want to download all that many files per year as suggested in our example. Consider that **Windows OnLine offers 15 new Windows and 30 new DOS files every day** to our members, that's 350 new files a week. In this example our downloader only picked up 15% of the available files per week.

All of the above considers only one single use for your new 14,400 fax/modem. I'm sure you'll find many other calls to make with it.

## Recommendation

This was not a review. It was a discussion of the relative merits of buying a 14,400 modem. I realize that many readers may now ask themselves the question -- What modem should I get? With that in mind may I suggest the US Robotics Sportster 14,400 Fax/Modem. In my opinion, the USR modem line is very well engineered. Their modems are easy to setup. This modem has a 5 year warrantee. USR has FREE 800 number technical support that is unsurpassed in their assistance. We use only USR modems at **WOL** and have never had a failure of any kind. No, they did not sponsor this commentary, but I wish they had. 😊

My suggestion is to upgrade **tomorrow** and get that high speed modem. Pay slightly more and get a good one -- they're well worth it. Call me, Frank Mahaney 510-736-4376 if you want us to send one out to you.

## Voting Booths

Briefly, on another subject -- we have added a new feature to our on-line service that I wish to draw your attention to. All members and non-members alike can cast their vote on many different subjects and view the results of all voting instantly. It's both informative and fun to do. I'm pointing this out because we want you to visit Windows OnLine and vote on several questions regarding the future direction of this magazine. If you wish to influence the future of this publication, call **WOL** and **VOTE**. We need your input, call 510-736-8343 (modem), and use the command "VOTE" from the main menu.

## Give a Gift

Purchase a membership for a friend as a Christmas or Birthday Gift. You will be supporting this magazine and assuring its future and getting a great on-line membership to WOL to boot. Click the button, (our icon), to view our membership application. Notice the menu bar on the top of this help file, where it says PRINT inside the menu it says PRINT-TOPIC, this will allow you to print our membership application. Print the application and send in your check or fill in the credit card information, sign the form and mail it in. Be sure the sign-in name and password are the exact ones the member will use at WOL... Example: "Bob" vs. Robert.



*That's the way I see it...*



**Frank J. Mahaney**  
**Publisher**

# Cover Story



(Click)

## *In this Issue:*

(Click all Buttons)

### *News*



[Interesting Computer News,](#) by Randy Wong



[New Product News,](#) by Rich Young

### *Features*



**Networking Windows,** by Darrell Poteet  
**Have It Your Way II - Customizing Setup Information Files**



**Visual Basics,** by Barry Seymour  
**I Declare!**



**An Installation Adventure!,** by Steve Peschka  
**The "Work" in Windows for WorkGroups**



**Windows Tips,** by Hugh E. Hardie  
**PIF Access Made Easy**  
**Defrag or Die**  
**Icon Title Face**

## *Commercial Reviews*



**Intel FAXability Plus/OCR,** by Scott Drassinower



**Pro 16 Multimedia System,** by Randy Wong

## *Shareware Reviews*



**CodePrint,** by Bob Gollihur



**WinDial 2.1,** by Rich Young

## *On The Lighter Side*



**WinGrin,** by Bob Gollihur  
**Computer term defined. . .**

## *The Marketplace*



**Modems for Members**  
**Save big time on file transfer costs!**

## *High Speed Modems for Members*



### *The Best For Less !!*

**WOL** has special pricing for its membership on US Robotics Modems.

\$349.00 for a USR Sportster Internal PC/FAX 14,400 bps v.32bis

-OR-

\$369.00 for a USR Sportster External/FAX 14,400 bps v.32bis

USR 14,400 modems will allow compressed files transfer at speeds of 1,650 CPS

**Windows OnLine™** sells all US Robotics products - Call us with your order

Consider membership with **Windows OnLine™** for the latest Windows shareware and now outstanding modems at fabulous prices.





### Lotus Doubles Your Spread



As if one was not enough, Lotus Development is setting the stage for two Windows spreadsheet products. Lotus will be releasing 1-2-3 2.0 for Windows and Improv for Windows. Improv for Windows is a multidimensional spreadsheet ported from the Next system. It has an extensive viewing facility and was made for number crunching on business data. Another main feature of Improv is the easy to read formulas. Users can write formulas in plain English, instead of speaking cell talk. Lotus is looking to release Improv for Windows in the next quarter. As for 1-2-3 for Windows, version 2.0 will be a major upgrade from version 1.x. A version manager will be added, with the function of providing what-if scenarios and performing audit trails. A status bar will display the icon's functions. Drag and drop will be supported. Also included is an intelligent charting facility, which can pick the chart display that is the best match for the chosen data. Version 2.0 will be available sometime in the first half of 1993.



### Double Your Pleasure



Microsoft Corp. has released Access for Windows, at a very low introductory price of \$99. With this low price, it is sure to beat out the current competition in the Windows database market. It is not the first, but it has the punch and price to make you take a second look. Access for Windows is designed for end users, who might need a database application on a more casual basis. It does however, contain a scripting language, Access Basic, for the professional database designer. Access Basic is similar to Visual Basic for Windows. It can make calls to C language routines in Dynamic Link Libraries (DLL). Access can read and update data from Borland's dBase and Paradox file formats, as well as from other database file formats. Following soon after the release of Access, Microsoft will release FoxPro 2.5 for Windows, which is geared more toward heavy application development.



### New Windows Graphics Accelerator



Integrated Information Technology (IIT) announced two new graphics coprocessor chips. The AGX-014 and the AGX-015 are Windows accelerator chips that are based on the XGA

architecture. The AGX-014 is designed for the ISA BUS computers. The AGX-015 is designed for the VESA Local Bus computers. Tests using a demo graphics card with the AGX-014 on a 486 33 MHz computer, scored a total of 31 on the WinTach benchmark. The graphic coprocessors support a non-interlaced display of 640x480 to 1280x1024 resolutions, and offers True Color, a 24-bit color depth. As with most accelerator graphics cards, all graphic instructions are stored within the chips for faster processing. Graphics cards using these chips will support 1 to 6 Mbytes of VRAM. There are several vendors that are implementing these chips on their graphics cards. Hercules will be installing these chips in their upcoming Hercules Graphite and Graphite VL cards. VidTech Microsystems will be added these chips to their GraphMax and GraphMax LB cards.



### **OLE! OLE Again**



Microsoft Corp. is quietly beginning to beta test a new version of Windows' object linking, and embedding (OLE) facility. This beta version is being circulated to a limited group of users. OLE 2.0 will have improved enhancements and provide a better appeal for application programmers. OLE 2.0 will allow users to edit objects embedded in a document without leaving the document. The drag and drop facility will now be supported. There will be a new macro language that will offer programmers a low-level language for applications. This version will continue to use the Windows' Clipboard facilities and the Network Dynamic Data Exchange (NetDDE) facilities for cutting and pasting objects. The enterprise macro language will eventually replace the two functions. Windows NT will include a 32 bit version of this new OLE.



### **QuarkXPress Ports To Windows**



Quark Inc. began shipping a limited supply of QuarkXPress 3.1 for Windows. QuarkXPress is a popular Macintosh desktop publishing application. Now that it has made it over to the Windows environment, users will be pleased to be able to design intensive color publishing documents. QuarkXPress offers designers precise control over layouts, text, and graphics rotation and other special effects. QuarkXPress' aim is for designers of advertisements, newsletters, and any short documents where color plays an important role. It was not designed for long documents, like FrameMaker or Ventura Publisher. QuarkXPress uses the frame approach, as does FrameMaker and Ventura. Color control and special character formatting should make this product appealing to many users. It uses publishing names and abbreviations enabling users who are not familiar with these terms, to learn what they mean. QuarkXPress is available now, at the suggested retail of \$895.



### **Super Quick CD ROM Drives Coming**



Toshiba America Information Systems Inc. has announced a new line of super fast Compact Disc Read Only Memory (CD-ROM) drives. These drives will have a transfer rate of 330 Kbyte per second, as opposed to the current 300 Kbyte rate offered by some manufacturers.

They will have an average of 200 milliseconds random seek time. There will be four models, including a laptop model and a multi-disc model. The prices will range from \$695. to \$3,575. These drives should be available sometime in December. Expect to see other CD-ROM manufactures to soon follow Toshiba's lead.



### **Ventura Puts On A Prettier Face**



Ventura Software Inc. is shipping Ventura Publisher 4.1, an upgrade to an already powerful desktop publishing application. It does not have many new features, but it does sport a new display design. Ventura Scan and Ventura Separator are now included with the base product, instead of being sold separately. A new button bar with 16 buttons is placed under the menu bar. A button bar editor is also included for moving, replacing, and editing the buttons. The button bar is optionally turned off and on depending upon the user's preference. Users can now apply style tags to a frame, such as width, color, and number of lines. Upgrade price for 4.0 users is \$99.



### **It's Movie Time**



Media Vision has announced the Pro MovieSpectrum, an add-in card for the 386/486 computer. With this card installed, a user can now make movies on their computer. Users can add video segments into presentations, training manuals, letters, or any other electronic communications used on a computer. The video devices that you could attach to the card are laser disc players, VCR players, or camcorders. Control of the devices is done through a control panel with push button VCR style buttons. Record, playback, rewind, and other functions are represented by these buttons. The Pro MovieSpectrum will be bundled with several software packages, including Microsoft's Video for Windows and Macromedia Action! The package will be available sometime at the end of the year. The price will be \$349.



### **What You See, Is What I See**



Fujitsu Networks Industry Inc. has introduced Desktop Conferencing (DTC) for Windows 3.1. DTC for Windows provides real time interactive point to point between PCs. It will allow users to simultaneously view and modify spreadsheets, documents, charts, graphics, and other conversational activity from several PCs. Making a change to an application element will instantaneously appear on sending and receiving PCs. DTC for Windows uses the integrated services digital network (ISDN). Running on ISDN networks, audio and data can share the same line. Desktop Conferencing is not new to the computer world, but it will be for Windows' users. Using dialup for remote computers to the host over ISDN, users will share a screen on an application rather than sharing time on a network. DTC for Windows is \$1,995., which includes the card for PC to ISDN connection. Other options are a light pen computing pack and a multifile transfer utility.



## **Are You OnTime**



Campbell Services announced a major upgrade to its OnTime personal calendar product. The upgrade will affect both DOS and Windows users. OnTime will now support the AT&T PassageWay technology, which enables users to link up with AT&T communications systems. A new feature is the ability to reconcile your personal calendar with OnTime for Networks group scheduling calendars. This will allow a user to continue using OnTime while traveling and still be a part of the work group's schedule. The upload and download facility can transfer all your entries from a computer to the user's network calendar manager. There are also improvements in the importing and exporting of data. It is limited to programs that can transfer text delimited and fixed length ASCII files. Support for TypeType fonts and other Type Managers are now supported. The upgrade will be available in December.



## **What's Up, WordPerfect**



WordPerfect InForms For Windows is now in beta testing. WP InForms will allow users to create and fill in forms in Windows. Yes, there are other form making applications available, but this one is from WP. It will be like no other form maker for Windows. You can fill in a form and then print it or email it on a network. The strange part is that this application will be split into two separate packages. The Inform Designer Package is the set of designing tools for creating forms. The tool palette contains the entry field, radio buttons, check boxes, bar code fields, tables, and other tools. The finished form can then be passed out to be filled in. The Informs Filler Package will allow any users to fill in pre-created forms. After the form is completed, it can be transported using email or any other communication method to return it back to where it belongs on a network.

WordPerfect is now shipping WP Presentations 2.0 for DOS. With this package, a user can create presentation materials using charting, printing, drawing, sound, and other presentation tools. The Windows version will be available in the first quarter of 1993.

WordPerfect is also shipping an upgrade to WordPerfect for Windows. Version 5.2 will include several new features. Grammatik 5 will be included, and is activated from a dropdown menu. Adobe Type Manager (ATM) will be included with the package. The macro system has gone through some improvements. More pre-created macros are included, such as Glossary macro, replace macro, pleading macro, barcode macro, and others. Sample button bars are included for users to edit or use as is. QuickFinder, QuickMenu, Mail Enable, and Object Linking and Embedding (OLE) support are some of the added attractions. The upgrade price is \$39.95 for version 5.1 users, but free to any customer that have purchased WPW 5.1 since October 1, 1992. Once you get past this version, WP for Windows 6.0 will be around the corner. This version will appear in the second quarter of 1993.



## **Novell Questions Windows For Workgroup**



Novell Inc. is saying that Microsoft Corp. is using its NetWare codes in Windows for Workgroups (WFW) without their permission. The two firms have been debating over this issue since last month. Microsoft is stating that Windows for Workgroups is an extension to Windows 3.1, in which Microsoft has already licensed the Novell codes. No matter what, Microsoft is still shipping Windows for Workgroups. The product has been shipping for over two weeks now, and will continue regardless of any legal actions. Novell has stated that Microsoft's contract has been terminated. Microsoft has the right to include NetWare codes in Windows 3.x standalone software, but not with any other versions of Windows. With Novell's actions in terminating the contract, Microsoft is barred from using NetWare codes in future versions of Windows. Windows for Workgroups is a direct competitor to Novell's NetWare Lite that is being implemented into the DR DOS package. Novell has also stated that they were omitted from beta testing WFW.



Intel Corp. is considering charging a royalty on clone 386, 486, and Pentium processors. Intel is looking at charging \$15. for a 386 system and \$25. for a 486 system that use a processor chip from a compatible manufacturer. Even if the manufacturer has a cross licensing agreement, Intel has the patent on the method in which memory is paged in and out of the processor. According to some legal eagles, it will be unlikely that the patent would be deemed invalid. Several Clone makers are looking at other options in suing Intel, such as restraint of trade or any other antitrust violations. Intel charging a royalty fee is within the bounds of the current patent laws.



Prodigy Services Co. will be offering an external V.32bis modem for \$199. to its subscribers. This was reported by Digicom Systems Inc. who has developed the modem. This modem will have fax and data compression features. This unit will transfer data at 14,400 bps. From what I see, a V.32bis modem with fax costs about \$400. for the average end-user. If that price is correct, then we will start seeing more high speed users on the line.



At your local Computerland stores there are several cash rebates for certain purchases. When you purchase a RasterOps Custom Color System, you will get a \$200. factory rebate. The offer is good until December 31, 1992. When you purchase an Okidata LED Page Printer, you have a choice of either a \$50. rebate, an Okidata toner, or the Adobe Type Manager software. This offer is good until December 31, 1992.

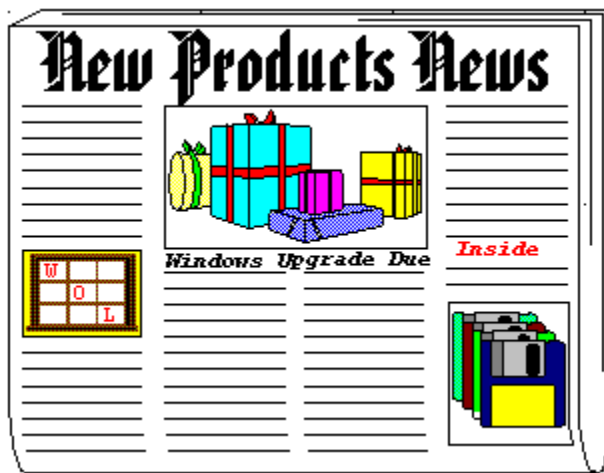


**Randy Wong**



**Computer News & Product Reviews**  
Windows OnLine™ IDS





by Rich Young

## MicroPhone Pro for Windows

Software Ventures Corporation has begun shipping the new MicroPhone Pro for Windows, the first communications package to integrate fax, multimedia support and interactive communications. MicroPhone Pro's powerful yet easy-to-master scripting language, coupled with support for Windows 3.1, lets users send and fax data anywhere simply by dragging and dropping.

MicroPhone Pro communications software integrates WinFax LITE send and receive fax software from Delrina Technology, Inc., allowing MicroPhone scripting commands to entirely automate fax operations. What once was a four or five step process, (choose a fax program and driver, select a document, select a destination, print to fax, etc.) becomes a one step drag and drop. Users simply drop files on customizable fax icons, set up to broadcast faxes to one address or a 100 person distribution list, instantly or at scheduled times. Received faxes can be viewed and printed just as easily.

### Multimedia Support

By fully supporting the MPC standard for multimedia, MicroPhone Pro for Windows lets users play and send sounds from various sources, including CD and MIDI files, play multimedia movies, attach audio greetings to their electronic mail messages, send multimedia files to remote computers, and, through scripting, control a multimedia presentation.

### Windows 3.1 and New Communications Features

MicroPhone Pro for Windows takes advantage of Windows 3.1 features such as drag and



drop, TrueType fonts and multimedia support. In addition, MicroPhone Pro for Windows includes these new features:

- o **Icon Bar.** A field, below the MicroPhone Pro menu bar, that contains user-customizable script buttons, which can be identified with text, color icons or both. Clicking a button or dropping a document on it launches the script it represents. For example, a user might prepare a script that automatically uploads files to an on-line service. Giving the script a button automatically places it in the icon bar. Then, whenever a document is dragged and dropped on the icon, it is automatically uploaded.
- o **Status Line.** A field at the bottom of the application window that provides updates on modem status (even if the hardware is internal), error messages, user-definable messages, and descriptions of menu functions.
- o **Dialing Directory.** An online phone book, which automates dialing, redialing and logging on to services and bulletin boards.

MicroPhone Pro lets users send electronic mail, access and retrieve data from information services and corporate databases, perform online research and conduct interoffice data transfers. MicroPhone Pro makes access to remote computers simple and intuitive, through full-featured scripting and graphical user interface design tools. Creating scripts is quick and easy, through a built-in script editor with more than 200 prewritten commands and functions to choose from, and Watch Me, an automatic script recorder.

MicroPhone Pro also features:

- o Complete implementation of Dynamic Data Exchange (DDE), allowing MicroPhone to act as both DDE server and client.
- o Multiple Document Interface support, allowing multiple sessions to run simultaneously.
- o Multitasking, permitting several applications to run at once, even during file transfers.
- o ZMODEM protocol support, for the fastest and most reliable transfer speeds.
- o Network support, including Novell, NetBIOS, DOS devices and others.
- o Prewritten log-on scripts to major information services.

## Pricing, Upgrading and System Requirements

MicroPhone Pro for Windows sells for a suggested retail price of \$195. Current MicroPhone II 2.0 users can upgrade for \$49.95.

MicroPhone Pro for Windows requires Windows 3.1 or higher; an IBM or compatible PC with a 286 or higher processor; 640k conventional memory with 256k extended memory

recommended; to play multimedia: CD-ROM, sound card, external speaker recommended; to fax: fax modem or fax card.

For more information contact:

**Software Ventures Corporation**  
**(510) 644-3232**  
**(510) 848-0885 FAX**



Brought to you by

[\(Click\)](#)

**Rich Young**  
Staff Writer  
Windows OnLine



Written By:

**Rich Young**



**2103 Hillside Ave**

**Walnut Creek, CA 94596**

**(510) 736-8343 - BBS - Conference 4**



©1992 ALL RIGHTS RESERVED



**New  
Products**

**News**

"A conservative look at the latest Windows apps"



## Have it Your Way II - Customizing Setup Information files

Last time I covered how Windows installations could be customized using the Automated Setup feature of Windows 3.1. While it's a great way to insure your users perform the install the way you want it done, there's an even better way to make Setup do what you want. With some study and a little editing, you can take complete control of the installation process by modifying the actual Setup Information Files.

### Setup and Its Files



While SETUP.EXE seems like a very complex program, it's actually little more than a script processor. During operation it looks to three files for instructions on what it should do. SETUP.INF is the main file and provides basic installation details. APPS.INF determines which Windows and DOS applications are installed. The most specialized file, CONTROL.INF, is responsible for installing printer drivers and international support features. They're all text files and formatted in the same manner as the initialization files WIN.INI and SYSTEM.INI.

As each file is discussed you may want to follow along by looking at your own copies. They were installed in the Windows System sub directory during installation or to the shared Windows directory if you performed a network install. The text files can be viewed with Notepad or any plain text editor in or out of Windows. If you plan to do this you should work with copies so as not to corrupt or accidentally modify your original files. It's also a good idea to test your custom configuration on a non-production system before you make it available for general use. The vice president of your human resources department is usually not the best test subject.

### SETUP.INF



The most important file of the set, SETUP.INF, is required for Setup to work at all. It's found initially on Disk 1 of the Windows disks and is used by both DOS and Windows modes of Setup. Since I could fill a book with a full discussion of everything addressed by the SETUP.INF file, I'll only cover the major areas of interest to the network administrator. For more complete coverage of each area the [Windows Resource Kit](#).

The individual sections in SETUP.INF are grouped into eleven basic areas of concern. The first is designated the general installation section and addresses the Windows installation options for DOS mode setup.



## General Installation

**[setup]**  
**help=setup.hlp**

This entry determines if a help file can be accessed during setup and if so what it is. You could use the default SETUP.HLP file or create one of your own to guide users through your customized installation.

**[run]**  
**"notepad"**

Any program specified here will run when Setup completes. The entry above would launch Notepad at the end of setup

**[dialog]**

A list of text strings used in Setup dialogs.

**[winexec]**

Special information needed by the DOS mode of Setup. These will usually not be modified.

**[data]**

The first part of this section allows the administrator to determine how much hard disk space is

required for installation.

**new386full=10500000,8000000**

This sample entry means that Setup will not allow installation of a full copy of Windows on a 386 unless there is at least 8 to 10.5 mb of space available on the target system. Entries are available for each type of install, including upgrades. It's very useful if you've added additional components to the installation process or removed something so Windows will run on a machine with a smaller disk resource.

The second part defines some Setup defaults.

**defdir=c:\windows**

Allows setting a specific drive and directory for Windows to be installed to.

**tutor="wintutor.exe"**

Which tutorial to run at the completion of setup. A customized presentation could be specified.

**netsetup=true**

An entry of true for this parameter would force a network (setup /n) installation from a shared copy of the operating system.

### **[disks]**

If there are additional programs you want installed on the user's system during installation you must add the source disk name and label in this section. Details on this process are found in the **Adding Additional Applications to Setup** section of this article.

### **[oemdisks]**

Defines optional disks for devices such as printer drivers that may be added during install. These are usually provided by the device manufacturer.

**[user]**  
**[windows]**  
**[windows.system]**  
**[windows.system.386]**

These sections deal with installation of required Windows files and generally are not modified.

**[shell]**  
**progman.exe, "Windows Program Manager"**

Determines which application is designated as the Windows shell in the SYSTEM.INI file.



## Display Driver

This section determines available display driver options. All standard supported displays are listed and these should not be changed. An additional specialized driver entry could be added however if in use for your installation. The required information is usually found in the manufacturer supplied OEMSETUP.INF file.



## Keyboard and Code Page

Keyboard and code pages are supplied for all supported international installations and generally do not require any modification.



## Mouse Driver

Settings are provided for all major pointing devices and should not need to be modified. If you're certain your users will only be using a particular device you could delete unneeded sections.



## Network Installation

All support networks have entries in this section so nothing should be modified. However if you received updated drivers from your network vendor which were to be added in addition to your current drivers or they were named differently, the specific network section could be changed.



```
[novell301]  
warning=2  
driver=2:netware.drv  
vxd=x:*vnetbios,2:vnetware.386,2:vpix.386  
sysdir=2:netware.hlp,2:nwpopup.exe  
windir=2:ipx.obj,2:ipxodi.com,2:netx.com,2:lsl.com  
windir=2:tbmi2.com
```

The last three lines of the sample entry for Novell NetWare 3.01 show the standard drivers support for NetWare under Windows. Additional drivers could be appended but do not attempt to do so without specific instruction from Microsoft or your network vendor.



## System Fonts

System fonts refers to display fonts used by Windows and applications in the interface. Printer fonts are not indicated here. Additional fonts could be added if you knew a custom application required them but this is uncommon.



## Copy Files

These sections deal with installation of required Windows files for specific installations and generally are not modified except for four optional sections. **[win.apps]** lists Windows apps to be installed, **[win.dependents]** lists DLL files required by an application, **[win.games]** lists games along with their help files, **[win.scrs]** lists screen savers, **[win.bmp]** lists wallpaper files, and **[win.readme]** lists readme type text files. The separate sections are the different areas presented at the optional component section of Setup. Adding a custom screen saver or bitmap of a company logo are the most common reasons for adding to this section.

```
[win.apps]  
7;.MYPROG.EXE,"My Windows Program", 23455, myprog
```

The first entry, 7, indicates the setup disk where the file is found. The executable filename comes next, **MYPROG.EXE**, followed by the description displayed during Setup, **"My Windows Program"**. The file size, **23455**, of the uncompressed file is given to help a user decide if enough free space is available. The last entry, called the profile string is like an index pointing to an entry in a **[group#]** section

and is used to find a related DLL listed in the [win.dependents] section.



## Program Manager Groups

If you've already determined a default or standard desktop using Program Manager you can modify this section so it can be created automatically at installation time.

```
[progman.groups]  
group3=Main,1  
group4=Accessories  
group5=Games  
group1=StartUp
```

This section defines all the groups that will be created during Setup. The entries under the section tell what items are in the group, the name of the group, and how it will be displayed. The first entry here means use **group3** in the [group#] section, name the group **Main**, and the **1** indicates it should be displayed as a window. No entry here means it should appear initially as an icon.

```
[group#]  
"Control Panel", CONTROL.EXE  
"MS-DOS Prompt", DOSPROMPT.PIF, PROGMAN.EXE,9
```

Each group to be created is assigned its own section followed by entries for each item in the group. The first part of the entry is the name displayed for the item - **"MS-DOS Prompt"**, followed by the executable file - **DOSPRMPT.PIF**. Optionally an icon source can be designated, **PROGMAN.EXE**, with the icon index number, **9**, if it is one of several icons in the file.



## Fonts

The set of printer and display fonts can be modified to exclude some standard fonts or include a custom set you want to make available for your users. Only raster, vector, and TrueType fonts can be listed here. You'll need very specific information which should be available from your font vendor. Printer or "soft" fonts cannot be added in this manner.



## Incompatible Driver

Windows protects itself during install by checking the AUTOEXEC.BAT and CONFIG.SYS files on the target system to insure there are no known incompatible device drivers or TSRs installed. The command is removed if it is found. If you want to insure that your users aren't loading a specific program you can insert an entry in the **[compatibility]** section and it will be removed.

**[compatibility]**  
**baddrver.sys**



## Miscellaneous

Miscellaneous primarily covers issues related to upgrading installations and copying specialized multimedia drivers. If you have a multimedia device which is not covered in the standard Windows installation you vendor should be able to supply you with an OEMSETUP.INF file which can be integrated into this area's installable.drivers section.



## System Configuration

You've probably noticed the type of machine option displayed during the initial portion of Setup. Most systems use **MS-DOS System** but there are entries for other machine types. This section insures drivers specific to a certain type of system are installed. If you have a system that is not mentioned specifically under setup and you are unable to install Windows or get it to run properly you can usually contact your vendor or Microsoft for details on any adjustments that can be made here.

## APPS.INF



When a user is prompted during Setup to decide if they want Windows to setup existing applications, it's the APPS.INF that controls the process. For Windows application this means creating a group and placing an appropriate entry for the program in the group. It does this for DOS apps too, but it also can assign a PIF.

If you want to exclude some applications from this process a **[dontfind]** section is provided. Windows applications installed through other parts of Setup are included here so they wont be placed in two program groups. The format is to simply list the executable name.

**[dontfind]**  
**unwanted.exe**

A **[pif]** section provides appropriate setting for specific DOS applications. The parameters specify the settings found in the PIF editor.

**[pif]**  
**DW4.BAT=DW4,"DisplayWrite 4"„cwe,,2**

The first parameter, **DW4.BAT**, is the name of the executable and is followed by the PIF name, **DW4**. Each remaining parameter is followed by a comma and designate windows title, startup directory, close window on exit flag, icon source file, icon number, Standard mode PIF settings section, Enhanced mode PIF settings section, ambiguous EXE section, optimized PIF section.

You can create multiple Standard and Enhanced mode PIF setting sections or use the settings in the default sections provided.

**[enha\_dflt]**  
**convmem=126,640**  
**emsmem=0,1024**  
**xmsmem=0,1024**  
**dispusage=fs**  
**execflags=bgd, exc**  
**multaskopt=50,100**  
**procmemflags=dit,hma**  
**dispoptvideo=txt**  
**dispoptports=hgr**  
**disflags=hgr**  
**otheroptions=afp**

## **CONTROL.INF**



CONTROL.INF provides information to Control Panel during Setup for installing printers and international support. All supported printers are already listed in the file and the only reason to modify it is if you've received a new unlisted printer driver. Most printer drivers come with an OEMSETUP.INF file with **[io.device]** and **[io.dependent]** sections. These can be appended to the CONTROL.INF so the driver is available during setup.

Microsoft recommends using Control Panel to change international settings and that the [country] section not be modified directly.



## Adding Additional Applications to Setup

As mentioned earlier, you can use Setup to install other applications at the same time as Windows. It will require a complete understanding of what files the application requires and where they should be copied. Several sections of the SETUP.INF will require modification for each application to be installed.

The additional files can be on floppy disks or in your Windows installation directory if you have a network installation.

### [disks]

**7=., "My Third Party Program", disk7**

The disk label, **disk7**, will prompt the user to insert the proper disk. Network installations will copy the files without prompting.

The section listing the files to be copied is listed in the [win.copy] section for stand alone installations or in [win.net] for network setups.

### [win.copy]

**#thrdprty.apps,0:winapp**

**thrdprty.apps** indicates the section where the files are listed. **0** points to the Windows directory and **winapp** means put the files in the winapp sub directory under Windows.

### [thrdprty.apps]

**7:APP.EXE,"Third Party App", 240000**  
**7:APP.HLP,"Third Party App Help, 12000**  
**diskspace=252000**

The disk number, **7**, followed by filename, **APP.EXE**, the title displayed to the user, **"Third Party App"**, and the file size, **240000**, are listed for each component. The last line indicates the total size of all files to be copied, **252000**.

## OEMSETUP.INF



I've mentioned OEMSETUP.INF files a couple of times without comment as to what they are. Since Microsoft didn't expect most users to delve as deeply into Setup as our discussion here, they devised a simple way for getting new information to Setup without directly modifying its information files. Hardware and software manufacturers can create OEMSETUP.INF files which Setup can read directly. They contain the same information as entries in the standard files do. Usually they're provided on a disk that contains new printer or display drivers and are accessed by choosing the **Unlisted or Updated Driver** options from Setup. Once you're familiar with Setup Information Files you can integrate the information these specialized files contain.

## Putting It All Together



If you've followed the series on network installation of Windows you've probably learned a lot more about the subject than you wanted to. You might also be feeling that if just setup can be this complex, actually running the system might be impossible. The good news is however, that once Windows is installed properly there's relatively little maintenance. With the information you've gained and a copy of the Windows Resource Kit, you'll be unstoppable!

By combining the power of customized Setup Information Files with the Automated Setup feature, your installations should be simple, trouble free, and easily maintained.

---

## Coming Up ↗

Now that you've got all those users up and running Windows, you're starting to find out they have lots of questions about their new environment. In the next issue I'll answer some of the most common questions affecting Windows on the network.

## Exsqueeze Me ?

If you have a question you feel might affect other network users as well, address it to me and I'll try to answer it here in the **REVIEW**. You can reach me by leaving a message on Windows Online or via CompuServe.



Another Peach from:

*Darrell Poteet*

501 Mt. Olive Rd.

Stockbridge, GA 30281

404-914-8403

Staff Writer for **WinOnLine™** REVIEW

## **CompuServe**

I can be reached on CompuServe via Account # 75300,3655.



## **Windows Resource Kit**

The Microsoft Windows Resource Kit is a technical manual, software utilities, and technicals bulletins that provides valuable information on the operation and configuration of Windows not provided in the standard manuals. It's available directly from Microsoft at 800-642-7676 for \$19.95.



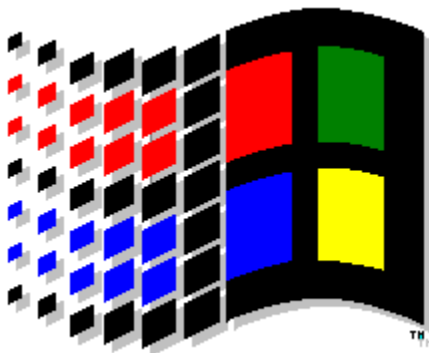
## I Declare!

I recently received some e-mail asking if I would cover the basics of using DLLS and Windows API calls in Visual Basic. Well heck, this column is called Visual BASICS after all, so lets' talk about one of VB's most powerful features, the **Declare** statement.

The Declare statement allows you to define and use functions embedded in other files and programs into your own. This one feature is the key to VB's near-limitless capabilities; if Visual Basic itself can't do what you want it to do, chances are a call to some other program file or DLL will.

There are two major areas where you can use the Declare statement; in accessing the Windows API (Application Programmer Interface) or in accessing DLLs (Dynamic Link Libraries). While the techniques are the same for each, the underlying concepts differ slightly.

### The Windows API



The Windows API is at the heart of everything Windows does. The API contains more than a thousand functions which create, change and destroy windows, draw text and graphics, manage memory and other things which go on "under the hood" of Windows. With this standard

programmer interface the low-level programmer working in C or Pascal doesn't have to re-invent the wheel every time he want's his/her program to create a window, populate a listbox or send a message to another window or application. This standardization is what makes it possible to program consistently and efficiently for Windows.

Many API calls use **messages** to do their work. If you want your program to clear a listbox, you send a message to the listbox telling it to clear itself. If your program minimizes a window it does so by sending an Iconize message to the window.

In order to send a message to a window you need to know it's **handle**. The message is the mail, the handle is the address. In Visual Basic 1.0 you needed a third-party DLL to get the handle of a control, but in version 2.0 each control now has a hWnd property which tells you it's handle, thus allowing you to send API messages to that control. The concept of messages and handles is fundamental to using the API, in VB or any other language.

Here's quick example of the API at work: when you double-click on the desktop the Task Manager appears. If you click the Arrange Icons button, TASKMAN.EXE obtains the handles of all iconized top-level program windows running, and then sends a message to each of those windows in it's handle list telling them to rearrange themselves.

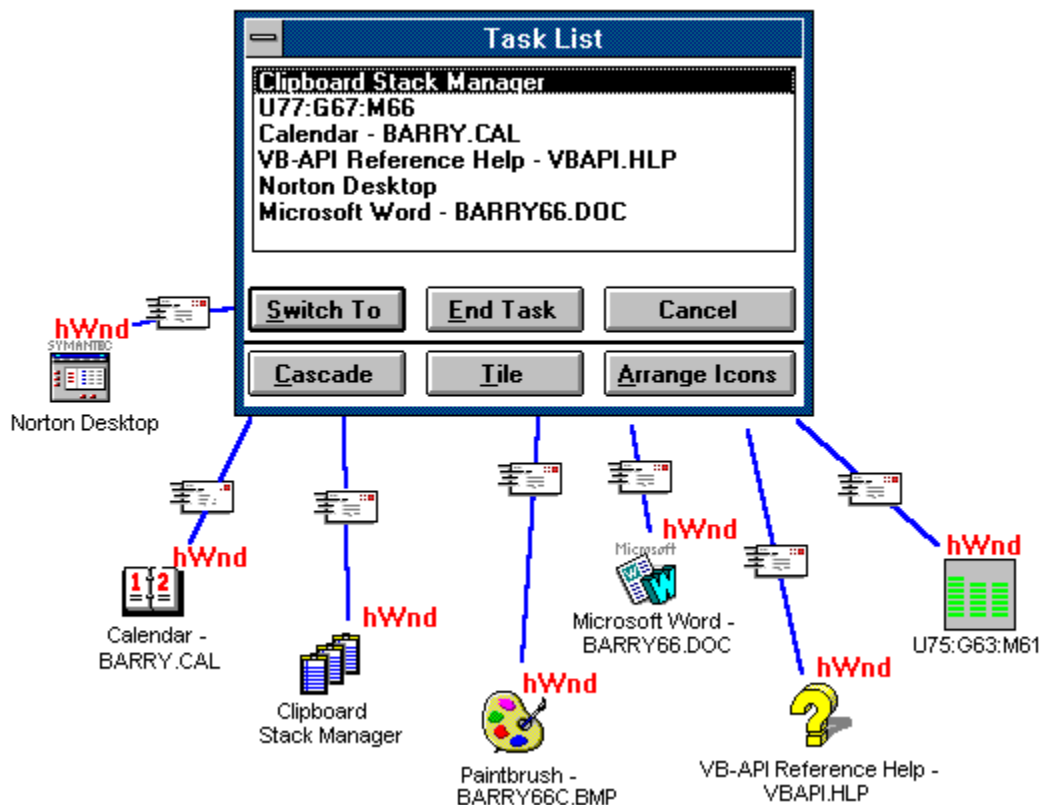


Figure 1. The Task Manager sending a message to all minimized programs using their handles

Visual Basic itself is a Windows program, thus VB.EXE and the programs you create with it use API calls, although the Visual Basic programmer is shielded from the API's

complexity. When you load a new form, somewhere behind the scenes Visual Basic is issuing a `CreateWindow()` function from the API. When you close the form a `DestroyWindow()` call is issued.

You won't need to know most of the API when writing in VB. The whole idea of Visual Basic is to make such detailed knowledge unnecessary. However if you do know how to use the API you can do many things that VB by itself cannot. More on that later.

## Dynamic Link Libraries

Dynamic Link Libraries, or DLLs, are 'pieces' of a program. They contain routines which are used by other programs. DLLs have two big advantages over static link programs. First, a DLL can be loaded into or removed from memory as needed, thus freeing up RAM. With a conventional program when you load it, you load it all, even if you're not using all of it. With a program that uses DLLs you only load that which you're using and unload it when you're done. Second, DLLs can be shared by programs, so only one copy of the DLL needs to be loaded, resulting in further memory savings. The most commonly used DLL is `COMMDLG.DLL`, which contains commonly-used dialog boxes such as File Open, File Save, Printer Setup and Color Palette in many different programs.

For example, you can have Windows Write and Windows Notepad running at the same time. If you click on File Open in either program, they'll make a call to `COMMDLG.DLL` to provide the dialog box you use to choose the file to open. Only one copy of `COMMDLG.DLL` is loaded at any given time, saving memory.

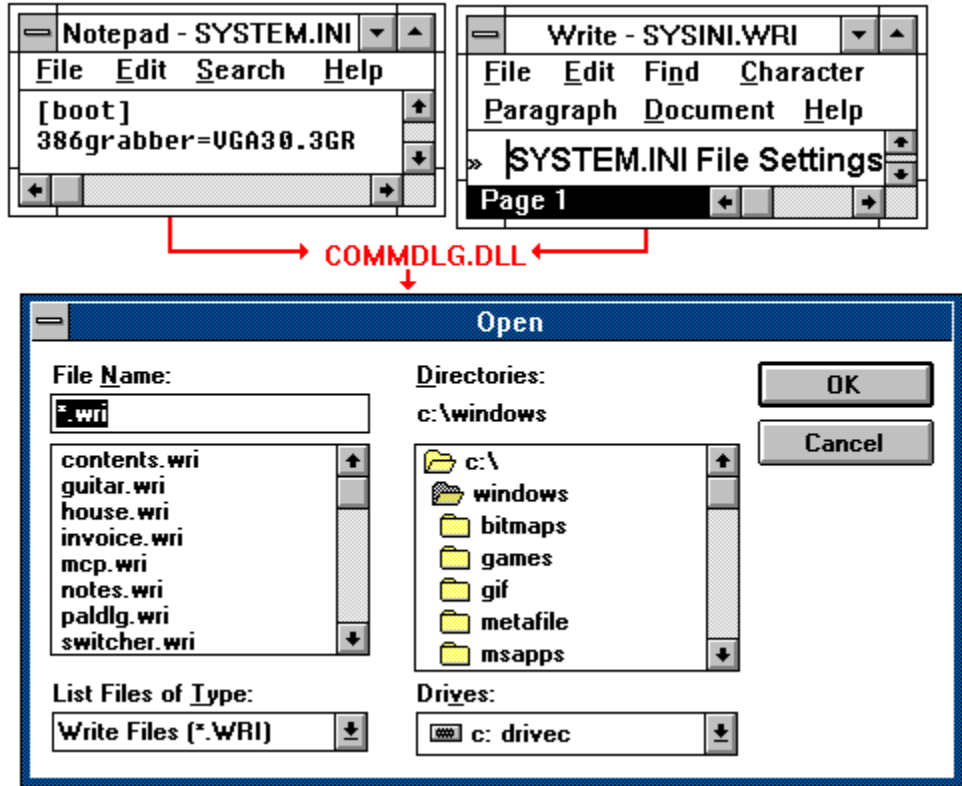


Figure 2. *NOTEPAD.EXE* and *WRITE.EXE* can each use *COMMDLG.DLL* to create a File Open Dialog box, but only one copy of *COMMDLG.DLL* is loaded into memory.

### The Declare Statement

When you use the Declare statement you define how your VB application will call the function. The parameters you use in the Declare statement include the name of the file you're accessing, the exact name of the function you're defining, the type and number of parameters passed to the function and the type of the function's return value.

Some declarations are simpler than others. Here's the Declare statement which accesses the API call `GetActiveWindow`;

```
Declare Function GetActiveWindow Lib "User" () As Integer
```

This one is simple to understand. "GetActiveWindow" is the name of the API function, the "Lib" parameter specifies that an external file contains the function, and "User" says the function is in the Windows file `USER.EXE`. The empty parentheses indicate that no parameters are passed to the function and the 'As Integer' specifies that the resulting value is an integer. The integer which results from calling `GetActiveWindow` is the handle to the currently active window. As you can imagine, this can be a very useful function.

Here's a more complex example, taken from Microsoft's SQL Server Library for Visual

Basic. The file VBSQL.VBX is a VB custom control used for accessing Microsoft SQL Server databases. Not only is VBSQL.VBX a custom control, it's also a DLL, which means you can access the functions embedded in it! In this statement, the programmer is defining the function SQLCmd, which executes a SQL query.

```
Declare Function SQLCmd Lib "VBSQL.VBX" (ByVal SqlConnection  
as Integer, Cmd as String) As Integer
```

In this command the function is called "SQLCmd" and the lib file is "VBSQL.VBX." Two parameters are passed, SqlConnection (an integer) and Cmd (a string). SqlConnection is the number of the connection to the SQL Server database, while Cmd is a string containing the command to execute. "ByVal" in front of a parameter indicates that the parameter is passed by value rather than by reference. The SQLCmd function returns an integer indicating success or failure of the function. Using this function (along with scores of others in VBSQL.VBX) Visual Basic programmers can write applications which access SQL Server databases.

When you purchase third-party DLLs, instructions on how to use them should be included the documentation for the product. In this way you can purchase specific packages which extend the capability of VB in ways you require. Some DLLs are full-blown commercial packages; others are shareware or even freeware, written by enterprising C programmers who wish to help out VB programmers and possibly earn a few bucks on the side.

## Calling the Functions You've Declared

Once the Declare statements are in a form they are available just like any other Sub or Function you write. If you make the declaration in a Form file only code in that form can use the function. If the Declare is in a module it's globally available.

API and DLL-based function calls have quirks which must be taken into account. These 'quirks' are actually the way things normally are in the world of C programming for Windows; they're just odd to us VB programmers. Odd though they may be they must be allowed for, or else your system crashes.

**Strings sent** to a function must be defined and initialized before including them as a parameter to the function call. This means that you have to define **and fill** the string (I fill it with empty spaces) before you use the function. When the call is made and this parameter is passed by value, the declared function will place it's results back into that variable. If the variable isn't long enough to hold the data, BOOM!

**Strings returned** from an API call are also terminated with the null character. In VB this would be Chr\$(0). Visual Basic string handling functions are defeated by Chr\$(0); if a string ends in thirty spaces and a null character, the RTrim\$ function won't get those spaces if they're to the left of the null.

To simplify the use of these functions it's often a good idea to write a 'wrapper,' a function you call which calls the API or DLL function. Much of the repetitious work -- creating and

filling a variable, trimming off the null character and trailing spaces -- can be done here. Here's the code from the wrapper function `WindowsDir` which obtains the Windows directory using the API call `GetWindowsDirectory`...

```
Function WindowsDir () As String
    Receive$ = Space$(255)
    ResultLen% = GetWindowsDirectory(Receive$, 255)
    WindowsDir = Left$(Receive$, ResultLen%)
End Function
```

You'll note that this function creates the receiving variable, `Receive$`, and fills it with 255 spaces. `ResultLen%` is an integer which holds the length of the string returned; `Receive$` is still 255 characters long, but now contains the Windows directory. We then strip out both the trailing spaces and the null character from `Receive$` with the `Left$` function in the last line and assign the remaining string to the result. This makes it much easier to get the Windows directory in your program.

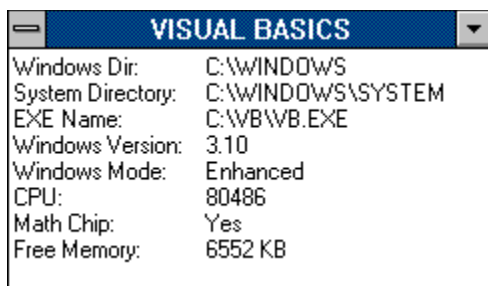
## A Word of Caution...

Making calls directly to the API or a DLL is a bit like casting a spell. You have to get everything just right or things are likely to go very badly for you! You have to know the exact format of the function you're calling or a GPF (or UAE) could result. For this reason it's wise to save your project before each run of your program to ensure you don't lose any work.

## This Week's Example

VB026EX is an example of an application which makes a number of calls to the Windows API to get information about the current Windows environment. For simplicity's sake these are all calls to Windows; no third-party DLLs are used here.

VB026EX has two files; the Form file `VB026EX.FRM` and the code file `VB026EX.BAS`. The make file is `VB026EX.MAK`. (No surprises so far...). When you run the program you get a single window describing your Windows environment.



VISUAL BASICS	
Windows Dir:	C:\WINDOWS
System Directory:	C:\WINDOWS\SYSTEM
EXE Name:	C:\WB\WB.EXE
Windows Version:	3.10
Windows Mode:	Enhanced
CPU:	80486
Math Chip:	Yes
Free Memory:	6552 KB

Following is a list of the API functions called in this example along with the Windows program file they're found in.

FUNCTION	SOURCE	DESCRIPTION
GetWindowsDirectory	"Kernel"	Gets the Windows directory name
GetSystemDirectory	"Kernel"	Gets the SYSTEM directory name
GetClassWord	"User"	Used to get the current program's EXE name
GetModuleFileName	"Kernel"	Used to get the current program's EXE name
GetVersion	"Kernel"	Used to get the current Windows Version
GetFreeSpace	"Kernel"	Gets the amount of free Windows memory
GetWinFlags	"Kernel"	Gets information about the Windows environment

If you intend to add API functionality to your programs, I **strongly** recommend that you obtain some sort of reference to the Windows API before you begin. You don't want to tinker around under the hood without a reference manual -- The Microsoft Windows Programmer's Reference is an excellent choice. Visual Basic 2.0 also comes with some help files which make it easier to place API calls into your programs; look for WIN31WH .HLP and WIN31API.HLP for information on API calls. VBKNOWLG.HLP contains articles from the Microsoft Knowledge Base with plenty of excellent examples ready-to-run.

## Disclaimer...

This and all subsequent examples will be in the new Visual Basic 2.0 text format. This means the FRM and BAS files have been saved as ASCII text format for easy readability. These files can be directly loaded into Visual Basic 2.0. You can click on each of the file names below to obtain the source code for this project. Instructions are also provided for recreating this example on your machine, in either version of VB. VISUAL BASICS regrets that we can no longer directly support the Visual Basic 1.0 file format.

[VB026EX.FRM Source Code](#)

[VB026EX.BAS Source Code](#)

[Instructions on Recreating this example](#)

*Barry Seymour*



**MARQUETTE  
COMPUTER  
CONSULTANTS**

---

Visual Solutions for Business Computing

22 Sirard Lane, San Rafael CA 94901  
415/459-0835  
CompuServe 70413,3405

For the WinOnLine REVIEW





**Marquette Computer Consultants** provides...



Windows Programming in Microsoft Visual Basic



Database programming for Windows/DOS applications  
in standalone, networked and/or SQL Server environments



Windows installation, optimization, training and support



Hardware support, assistance and troubleshooting

## VB026EX.FRM Source Code

### Instructions

VERSION 2.00

Begin Form SysInfo

```
BorderStyle = 1 'Fixed Single
Caption = "VISUAL BASICS"
FontBold = 0 'False
FontItalic = 0 'False
FontName = "MS Sans Serif"
FontSize = 8.25
FontStrikethru = 0 'False
FontUnderline = 0 'False
Height = 3105
Left = 2655
LinkMode = 1 'Source
LinkTopic = "Form1"
MaxButton = 0 'False
ScaleHeight = 2640
ScaleWidth = 4305
Top = 1545
Width = 4485
```

Begin TextBox Text1

```
BorderStyle = 0 'None
Enabled = 0 'False
FontBold = 0 'False
FontItalic = 0 'False
FontName = "MS Sans Serif"
FontSize = 8.25
FontStrikethru = 0 'False
FontUnderline = 0 'False
Height = 495
Left = 60
MultiLine = -1 'True
TabIndex = 0
Text = "Text1"
Top = 60
Width = 1215
```

End

Begin Timer Timer1

```
Interval = 1000
Left = 60
Top = 2100
```

End

End

Const WF\_STANDARD = &H10

```
Const WF_ENHANCED = &H20
```

```
'Custom Constants
```

```
Const KB_XT = 1
```

```
Const KB_M24 = 2
```

```
Const KB_AT = 3
```

```
Const KB_Enhanced = 4
```

```
Const KB_N1050 = 5
```

```
Const KB_N9140 = 6
```

```
Sub Form_Load ()
```

```
    GetSysInfo
```

```
    Text1.Left = 30
```

```
    Text1.Top = 30
```

```
    Text1.Width = Sysinfo.TextWidth(Text1.Text)
```

```
    Text1.Height = Sysinfo.TextHeight(Text1.Text)
```

```
    hOffset = Height - ScaleHeight
```

```
    Height = Text1.Height + hOffset + 60
```

```
    Width = Text1.Width + 60
```

```
End Sub
```

```
Sub Form_Resize ()
```

```
    If WindowState = 1 Then
```

```
        Sysinfo.Caption = "RAM: " + Format$(FreeMem&() \ 1024) + "KB"
```

```
    Else
```

```
        Sysinfo.Caption = "VISUAL BASICS"
```

```
    End If
```

```
End Sub
```

```
Sub GetSysInfo ()
```

```
    Temp$ = ""
```

```
    Sysinfo.Cls
```

```
    Temp$ = Temp$ + "Windows Dir: " + Chr$(9) + WindowsDir() + Chr$(13) + Chr$(10)
```

```
    Temp$ = Temp$ + "System Directory: " + Chr$(9) + SystemDirectory() + Chr$(13) +
```

```
Chr$(10)
```

```
    Temp$ = Temp$ + "EXE Name: " + Chr$(9) + EXENAME() + Chr$(13) + Chr$(10)
```

```
    Temp$ = Temp$ + "Windows Version: " + Chr$(9) + Format$(WindowsVer() / 100,  
"##.00") + Chr$(13) + Chr$(10)
```

```
    Temp$ = Temp$ + "Windows Mode: " + Chr$(9)
```

```
    Select Case OperatingMode()
```

```
        Case WF_ENHANCED
```

```
            Temp$ = Temp$ + "Enhanced"
```

```

    Case WF_STANDARD
        Temp$ = Temp$ + "Standard"
    End Select
    Temp$ = Temp$ + Chr$(13) + Chr$(10)

    Temp$ = Temp$ + "CPU: " + Chr$(9) + Chr$(9) + Format$(80000 + GetCPU()) + Chr$(13)
+ Chr$(10)

    If HasCoProcessor() Then
        Temp$ = Temp$ + "Math Chip: " + Chr$(9) + "Yes" + Chr$(13) + Chr$(10)
    Else
        Temp$ = Temp$ + "Math Chip: " + Chr$(9) + "No" + Chr$(13) + Chr$(10)
    End If
    Temp$ = Temp$ + "Free Memory: " + Chr$(9) + Format$(FreeMem&() \ 1024) + " KB" +
Chr$(13) + Chr$(10)

    If FreeMem&() <> OldMem Then
        Text1.Text = Temp$
        If WindowState = 1 Then ' minimized
            Sysinfo.Caption = "RAM: " + Format$(FreeMem&() \ 1024) + "KB"
        Else
            Sysinfo.Caption = "VISUAL BASICS"
        End If
    End If

    OldMem = FreeMem&()
End Sub

Sub Timer1_Timer ()
    GetSysInfo
End Sub

```

## VB026EX.BAS Source Code

### Instructions

```
Declare Function GetWindowsDirectory Lib "Kernel" (ByVal Buff$, ByVal sizeBuf%) As Integer
Declare Function GetSystemDirectory Lib "Kernel" (ByVal Buff$, ByVal sizeBuf%) As Integer
Declare Function GetClassWord Lib "User" (ByVal hWnd%, ByVal nIndex%) As Integer
Declare Function GetModuleFileName Lib "Kernel" (ByVal hModule%, ByVal Buff$, ByVal sizeBuf%) As Integer
Declare Function GetVersion Lib "Kernel" () As Integer
Declare Function GetFreeSpace Lib "Kernel" (ByVal wFlags%) As Long
Declare Function GetWinFlags Lib "Kernel" () As Long
```

```
'From WIN.INI
Const GCW_HMODULE = -16
```

```
Const WF_CPU286 = &H2
Const WF_CPU386 = &H4
Const WF_CPU486 = &H8
Const WF_STANDARD = &H10
Const WF_ENHANCED = &H20
Const WF_8087 = &H400
```

```
Global OldMem As Long ' saves previous memory value
```

```
Function EXENAME ()
    Wnd = Screen.ActiveForm.hWnd
    hModule = GetClassWord(Wnd, GCW_HMODULE)
    Buff$ = Space$(255)
    TChars = GetModuleFileName(hModule, Buff$, 255)
    EXENAME = Left$(Buff$, TChars)
End Function
```

```
Function FKeys ()
    FKeys = GetKeyboardType(2)
End Function
```

```
Function FreeMem& ()
    FreeMem& = GetFreeSpace(0)
End Function
```

```
Function GetCPU ()
    Flags& = GetWinFlags&()
    Match = 1
    Select Case Match
        Case (Flags& And WF_CPU486) \ WF_CPU486
```

```
        GetCPU = 486
    Case (Flags& And WF_CPU386) \ WF_CPU386
        GetCPU = 386
    Case Else
        GetCPU = 286
    End Select
End Function
```

```
Function HasCoProcessor ()
    Flags& = GetWinFlags()
    If Flags& And WF_8087 Then
        HasCoProcessor = True
    Else
        HasCoProcessor = False
    End If
End Function
```

```
Function OperatingMode ()
    Flags& = GetWinFlags()
    If Flags& And WF_ENHANCED Then
        OperatingMode = WF_ENHANCED
    Else
        OperatingMode = WF_STANDARD
    End If
End Function
```

```
Function SystemDirectory () As String
    Buff$ = Space$(255)
    TChars = GetSystemDirectory(Buff$, 255)
    SystemDirectory = Left$(Buff$, TChars)
End Function
```

```
Function WindowsDir () As String
    Buff$ = Space$(255)
    TChars = GetWindowsDirectory(Buff$, 255)
    WindowsDir = Left$(Buff$, TChars)
End Function
```

```
Function WindowsVer () As Integer
    Version = GetVersion()
    WindowsVer = ((Version Mod 256) * 100) + Version \ 256
End Function
```

## Instructions

Visual Basic 2.0 can read and convert files from Version 1.0. Unfortunately the reverse is not the case. Consequently, VISUAL BASICS regrets that we can no longer directly support the Visual Basic 1.0 file format.

Visual Basic 2.0 can save and load form (FRM) and module (BAS) files in an ASCII text format. The FRM files are very descriptive and can be used by Version 1.0 programmers to recreate forms. BAS files can still be imported directly to a Version 1.0 project.

Examples in VISUAL BASICS will work in both versions 1.0 and 2.0 unless otherwise indicated.

### for Visual Basic 2.0...

1. Go to the Form or Module section in this HLP file containing the desired code.
3. Click Edit Copy from the WINHELP menu. The text from the current section will be displayed in a text edit window.
4. Select the text desired and click the Copy button to paste it into the Clipboard. Clicking Copy without selecting text copies ALL of the text to the Clipboard.
5. Open Notepad and paste the text into it. For Form (FRM) files, remove all text above the legend VERSION 2.00.
6. Save the file with the file name of your choice. Be sure to add the correct file extension.
7. Run Visual Basic 2.0, create a new project and add each file to the project normally.

### For Visual Basic 1.0...

1. Follow Steps 1 through 5 above.
2. Run Visual Basic 1.0 and create a new project. Add all BAS files directly to your project; VB 1.0 can still read them.
3. Read the text in all FRM files to guide you in recreating each form. Paste code into the declarations section of each form. and save.



## The "Work" in Windows for Workgroups

### If you can stand the installation process, Windows for Workgroups offers some real potential

As a network administrator, I'm quite pleased to see the major software vendors work toward integrating network and desktop operating systems. The newly-announced Windows for Workgroups (WFW) provides a glimpse into the future of how those divergent systems may merge. While the installation process is, at best, rough around the edges, the finished product is a true pleasure to use.

I recently spent some time installing a small Windows for Workgroups network on top of an existing Novell NetWare network. My experience in doing so made me re-evaluate the importance of something I had come to take completely for granted - hassle-free software installation.



#### Installation #1

The first PC I installed WFW on is a 486/33 with 8 megabytes of RAM and a 200 megabyte IDE hard drive. The hard drive is split into three partitions to support O/S 2 2.0, the OS/2 boot manager, and a DOS partition where I keep a copy of Windows 3.1. It's a pretty basic hardware configuration, the only "novelty" item being a local-bus video motherboard from Orchid.

Things started off inauspiciously enough on the first install. I was halfway through disk three (of an eight-disk set) when trouble first appeared. The graphical portion of WFW Setup had just appeared, and I was being prompted for some personal information, such as name, company, etc. However, quicker than you can say "I'm Hosed!", the system dropped off into a deep coma. Time for the old three-finger salute (CTRL+ALT+DEL).

The system booted up fine, and I dug out my WFW Setup disk. I popped it back in, and typed *A:SETUP* from the command line, expecting to have to start the whole WFW installation process all over again. If only it had been that easy.

The first message that popped up informed me that WFW could not find an existing copy of Windows 3.1, and since I had only bought the upgrade version, it could not continue.



**HOT**



**TIP**

**ALWAYS** make a backup copy of your Windows and System directory before doing any kind of upgrade.

I dug out my now-dusty copy of Windows 3.1 and, between crying sobs, re-installed it. After 20 minutes, I was ready to give it another try; I put the WFW Setup disk in the floppy drive and started again.

This time I didn't even get to the graphical portion of Setup. The system crashed while trying to start the graphical portion of Setup, claiming a problem occurred with the execution of Windows in Standard mode. Knowing what lay ahead, I resisted the urge to grab a power drill to relieve the building tension in my head, and instead, reinstalled Windows 3.1 again.

**HOT**



**TIP**

As I found out at the end of my odyssey, reinstalling Windows each time is not necessary. WFW adds an entry to the SYSTEM.INI file, under the heading **[BOOT DESCRIPTION]**; the entry is **SETUPSTATE=**. If you delete that line entirely, WFW does not make you reinstall Windows 3.1. Unfortunately, you'll see as the story progresses that I did not find this out until the bitter end.

On my third try, I got WFW to install correctly. It took the better part of day, but what a thrill it was. Now, I only had two more machines to do.



## Installation #2

The second machine met, according to Microsoft, the minimum hardware requirements for WFW. It is a 386/25 with 4 megabytes of RAM and a 100 megabyte IDE hard drive. The PC is used as a scanning workstation, so it also has a SCSI interface card to which the scanner connects, and a scanner coprocessor card.



If we've learned anything from the OS/2 2.0 fiasco, it is **DON'T BELIEVE THE MANUFACTURER'S MINIMUM SPECIFICATIONS WILL ACTUALLY WORK!** Yes, I did get WFW running on this machine. The performance is so pitiful, though, that it quickly becomes an exercise in frustration. You could get an attorney to return your phone call quicker than you could get the File Manager to open on a minimum spec machine!

Of course, the first try at installation left me with the dreaded "electronic coma" when I got to the graphical portion of Setup. Not having the benefit of the wisdom I imparted above, however, I reinstalled Windows 3.1 so I could get back to square one.

The next install attempt actually worked - after only two tries! I was ecstatic, beaming with self-pride, having only had to spend about two hours getting WFW installed.

I allowed WFW to make the necessary changes to my AUTOEXEC.BAT and CONFIG.SYS, and then rebooted the machine. As you may have guessed, tragedy struck again at this point; the network software failed in its attempt to initialize my Token Ring card.

I found this especially perplexing. After all, my network card had been working fine for the two years that it had been in that machine. I suspected that perhaps one of the two add-in boards was the culprit.

I first pulled the scanner coprocessor board and tried to reboot; no success. Next, I pulled the SCSI card and tried to reboot; Eureka - it worked! My happiness quickly faded, however, as I pondered the possibility of having to somehow relocate the scanner to a different PC. I poked and prodded and tried a few other combinations, but my Token Ring card failed anytime I stuck the SCSI card back in. I couldn't get the software to look past the hardware, so I decided to take a harder look at the SCSI card.

The SCSI card, as it turns out, does have a small bank of DIP switches. One of their functions is to set the base memory address of the card. My Token Ring card uses two base address, CC00-CFFF and D800-DBFF. I had always used my SCSI card at its default setting of D000-D3000, and the system had worked fine. On a hunch, though, I switched the base memory address on my SCSI card to the next rung on its ladder - E000. I shoved *ALL* the cards back in the motherboard and rebooted; voila - it worked!



If you have more than one card in your PC that uses a base memory address, check for conflicts, even if the machine has been working fine prior to installing WFW. If you have memory addresses that daisy-chain within one another, change the addresses so that there is no overlap between cards.



## Installation #3

The last computer on which WFW was to be installed was my own. It's a great machine - the latest in available technology. The PC is a 486 33/66, with 16 megabytes of RAM, a 250 megabyte local-bus SCSI2 hard drive, and local-bus video with the new ATI Ultra Pro graphics card with 2 megabytes of VRAM (hey - I take my computing seriously). It, of course, posed the most serious problems.

The first issue was the video card. Windows 3.1 wouldn't install with this video card. The drivers that come with the card require that Windows be running in 386 Enhanced mode; unfortunately, Windows Setup runs in Standard mode. Fortunately, I had the hindsight of several days' effort and pounds of sweat getting Windows 3.1 installed on this machine. I had to pull the video card and put in a standard ISA VGA card.

The next issue was network drivers. I've been using a 4MG Token Ring card, which worked fine until I started getting 486-class machines. The network card simply can't keep up with the faster processors, and usually IPX has to be run several times before the card initializes. The solution to this problem was to switch from the NDIS standard IPX to the new ODI standard IPXODI. I had been running this configuration for a couple months, so I assumed I was on safe ground.

The first installation was similar to the others; the first attempt induced an electronic coma shortly after the graphical portion of Setup started. Fortunately, by this point, I had learned about the *SETUPSTATE=* line in the SYSTEM.INI and was able to delete it and continue.

The next clue of bad Karma came when Setup was configuring for the network. It gave me an error message to the effect that I had ODI drivers that couldn't be recognized, and I needed to manually remove them from my AUTOEXEC.BAT. Huh??

Not realizing the significance of this, I continued on my merry way, until Setup was complete. My computer rebooted and - flop - my network card wouldn't initialize. A few testy minutes on the phone with Microsoft Tech Support gave me the answer.



WFW will **NOT** support ODI network drivers; it only supports NDIS-compliant drivers. Make sure that your network card works in **YOUR** machine **WITH** NDIS drivers before installing WFW.

As this article is being written, I am currently in search of a better, faster Token Ring card to plug in my machine and complete the WFW network - but, hey - I'm worth it.



## Using Windows for Workgroups

Fortunately, I have been able to spend some time on the WFW network by logging onto the 486 PC (installation #1 above). It has some really terrific features, and minimal drawbacks.




One of the best things about WFW is the integrated Mail. The Mail system is extraordinarily easy to use, yet quite powerful. All major functions are available either from buttons or the toolbar. With just a few clicks you can add people to your mailing list, carbon copies to others and a return-receipt to you.


You can setup your Mail configuration to check for incoming messages as often as you'd like - every two minutes or every two hours.





Sending Mail isn't limited to the Mail program, either. You can send files directly from the new-look File Manager, or other applications that are WFW-aware. For example, Word for Windows 2.0b, Excel for Windows 4.0, and PowerPoint for Windows 3.0 are all WFW-aware. When you start them up, they check to see if you are running WFW; if you are, they all add a *Send* option to the File menu.

If you are working on a document, spreadsheet or presentation that you want to forward to a colleague, you simply select the Send option, and a Send Mail dialog box pops up. To make matters even easier, it is the same Mail dialog box that you use when starting directly from the Mail program. This is something that WFW has implemented throughout the product; you may jump into Mail or Schedule+ from many different programs and places, but they work uniformly regardless of their beginnings.

If you want to bypass Mail, and just have a common document to which everyone in your group can make changes, you can easily share it. Simply open up File Manager, and click on the file name. Next, click on the  Share button. This brings up the Share dialog box, from which you can allow other WFW users read-only or full rights to the file. You can also place password protection on the file for either rights mode, effectively keeping out unwanted snoops.





 Schedule+ also benefits from the excellent integration from Microsoft. Setting up appointments with other users on the WFW network is as easy as sending Mail. The calendar is extremely colorful and graphically-oriented, so it's quite easy to see what time blocks different people have scheduled.

 Chat is another feature of WFW. Chat basically enables you to communicate with another WFW user as though on a phone call. Instead of talking into a receiver, though, you type your conversation at the keyboard. It has the usual Microsoft bells and whistles that we've all come to know and love. When you are "ringing" somebody, an icon of a ringing phone appears on the bottom of their WFW desktop, and a phone ringing .WAV file plays. The ring sound is also customizable, so your ring sound can be a dog barking, horn honking or any other .WAV file you might like. I was actually surprised at how often Chat came in handy when discussing quick questions with staff using the scanner workstation.

Finally, there's nothing like a good game to get you through a day.  Microsoft has included a new network-aware game of Hearts. Up to four network users can participate in a

game, and it can make for an excellent stress-breaker during the midst of another crisis-filled day. I highly recommend a game or two during one of those Excedrin headaches.

On the down side, there is performance lag whenever you do anything that requires WFW to get a list of drives and directories. This includes opening File Manager, or saving or opening a file in any Windows application. The reason is fairly obvious; WFW not only has to check your local hard drive, it also has to check the WFW network for any shared files and drives. The lag is fairly unbearable on the 386 system (as are most WFW-related functions), but it's scarcely a bother on the 486.

- There are many other features I didn't discuss here:  Network DDE,
-  a network clipboard, from which you can share information among WFW users,
-  WinMeter, a real-time graph of the percentage of CPU resources devoted to applications and percentage devoted to network overhead and
-  Net Connect, which offers information about other WFW users connected to your PC.

All-in-all, WFW provides an excellent networking solution, providing you can get it installed. Given the nominal additional price of WFW over Windows 3.1, I expect that WFW will quickly surpass 3.1 as Microsoft's most popular version of Windows.



Written By  
Steve Peschka

**Steve Peschka**

**Steve's Software**

13120 SE 137th Drive

Clackamas, OR 97015

Message Phone: (503) 698-6636

Makers of "Steve's Hoops Tracker", the basketball software used by the NBA World Champion Chicago Bulls and Los Angeles Clippers!

## Windows Tips



### PIF Access Made Easy

### Defrag or Die

### Icon Title Face

### PIF Access Made Easy

An *idée fixe*, pronounced eeday feeksay, is a dangerous thing. The French call it *idée fixe*, fixed idea, but we might talk about wearing blinkers. Its where one defines a desired outcome in one's mind and finds reasons why it will come true no matter what evidence there is to the contrary. The *idée fixe* has been the downfall of many over the years. Running headlong towards an objective, ignoring all input that would indicate that such an activity would be hazardous to one's physical, mental and fiscal health.

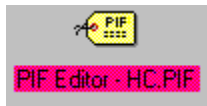
It was my downfall recently. Well, downfall is a mite harsh but the incident did point out my inability to step back and see the bigger picture.

There I was, needing to edit a PIF file. I knew that files were associated in the WIN.INI file with specific applications such that, if I double clicked on a file with an extension of TXT, Notepad would start and load the file I clicked on.

So, I double clicked on the PIF file and was most disconcerted when the application referred to in the file started. It took me 15 seconds to figure our that the above rule of association does not work with PIF files. They are designed to launch applications and the only possible outcome of double clicking on them is to launch the embedded application and not launch the PIF editor. Of course, I knew that before I tried it but for the time I wanted to edit the PIF file, I wanted it to act like any other application and associate.

Why did I want so badly to have it associate, you may ask? The reason is that I cannot stand navigating around my directories and subdirectories to find the PIF file I want to edit. It makes for much lost time and frustration. I wanted the PIF editor to be launched when I clicked on the PIF file so that I would not have to navigate to the file after I had loaded the PIF editor.

Of course, there is a simple way of achieving my desire without changing the laws of Windows Nature. Start up the PIF editor and turn it into an icon. Next, drag the PIF file you want to edit onto the icon and release the mouse button. The PIF editor does not turn itself into the active application but it will show the name of the PIF file it has just loaded, see below. Double clicking on the PIF Editor icon, makes the PIF file editable.



You can also drop a PIF file into a PIF Editor window if part of it is showing on the screen at the same time as the File Manager window.

Now, if I can only remember to keep these blinkers off.

## Defrag or Die

If I said that we were going to discuss defragmenting hard disks, you might rightly ask what exactly that has to do with Windows more than any other program. The answer is that Windows spends a lot of time going to and from the disk and, even with the great features of the latest version of SMARTDRV.EXE, the state of your hard drive may have a significant impact on Windows performance.

Imagine a large jigsaw puzzle with 25% of the pieces randomly missing. That is how the data is laid out on your hard drive after you have used it for a while. The blank areas represent the unused portions of the disk and the filled in areas are in use by files and programs. When a new file is created, DOS allocates space to it, using a mysterious algorithm known only to monks in the most inaccessible region of Tibet.

It may be that your new file is too big to fit into one of the blank spaces and must use more than one. This results in fragmented files which causes the poor hard drive twice as much work to read. Thus defragmentation.

Most defragmenters allow you to place specific directories at the front of the drive. I put my \WINDOWS directory first followed by \WINDOWS\SYSTEM and \APPL\AMIPRO. You can also set the order of files within directories. My order is EXE, COM and DLL.

Don't forget to run CHKDSK /F before you start to find all the lost clusters which have been left from the last time Windows did its dying swan act and went belly up. The files will appear in the root directory with the extension of CHK. Erase them before you start.



Also, delete your permanent swap file before you start and recreate it after you are finished.

Now all that is left to do is DEFRAG. Get to it!!!

## Icon Title Face

You can change the type face and size of the text which appears under icons very easily. There are two lines which must be added to the WIN.INI file under the [Desktop] heading. They are:

IconTitleFaceName=

IconTitleSize=

The IconTitleFaceName is any True Type font name and the IconTitleSize is the point size you desire. The defaults are MS Sans Serif and 8.

While this has been reported elsewhere as working with any font, I am unable to success. I tried three different True Type fonts, two from Microsoft and one public domain. Not all the letters appeared in the icon titles and the results were very poor.

I suspect the problem may be with the video driver but I have no proof. Try changing your IconTitleFaceName and see if it works with your system. Let me know how it turns out.

Can't win 'em all!!!

**Investigation conducted by**

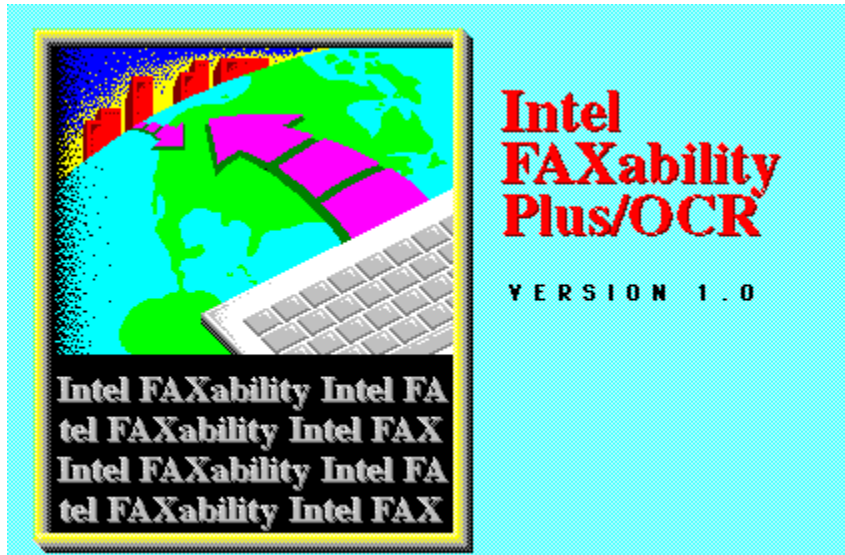


**Hugh E. Hardie**

**P.S. I can be reached in either the I-Link Windows or Relaynet Windows conferences for questions or for tips.**



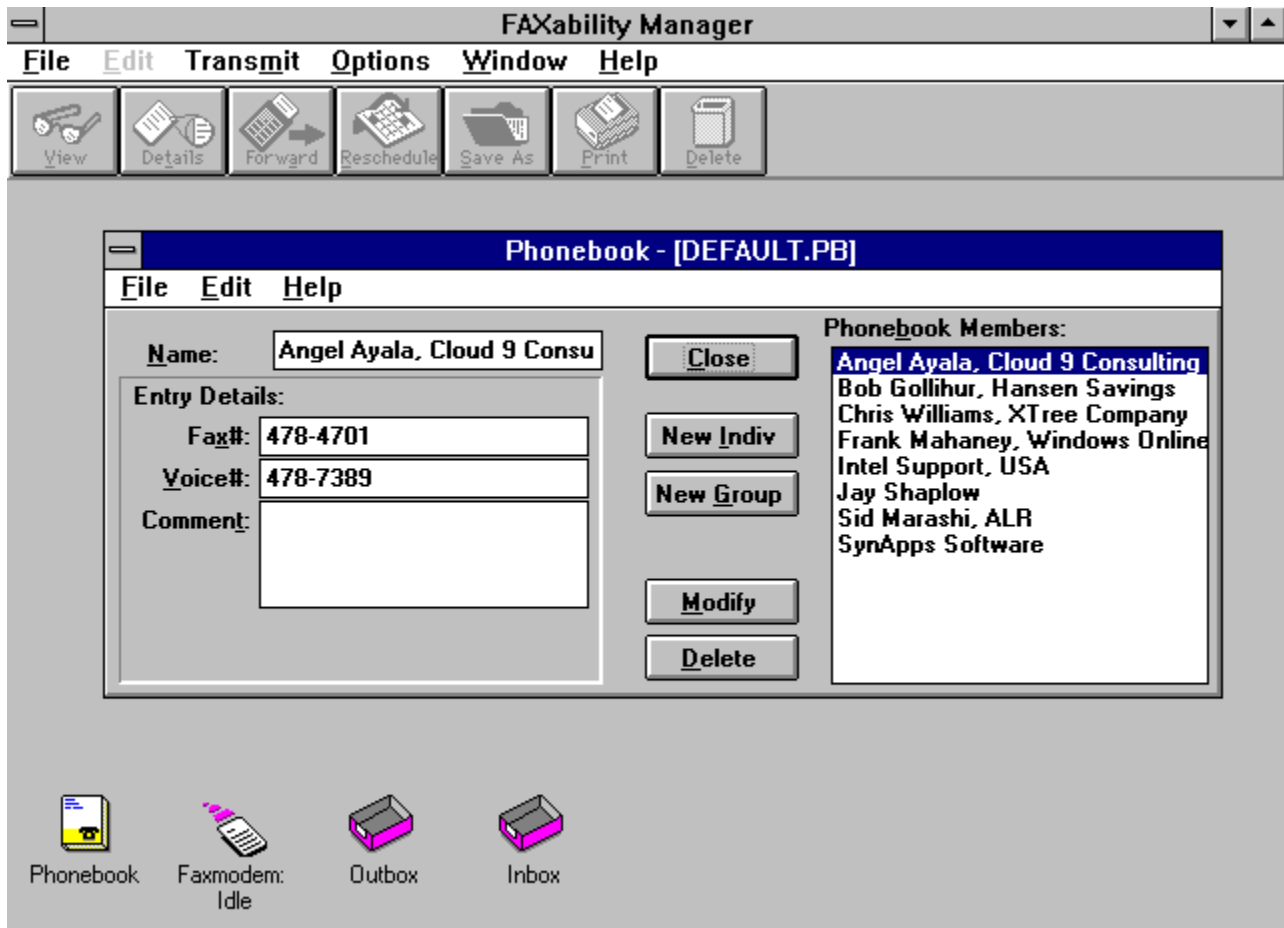
**Hardie & Associates Inc.**  
Walnut Creek, CA  
**(510) 935-3994**



### Reviewed by Scott Drassinower

Intel is famous for making CPUs for computers -- just about every IBM-compatible PC uses one, and many people also use Intel print spoolers, network cards, and fax cards. Intel's new FAXability Plus fax software is their first attempt into the software market. The FAXability line includes FAXability Plus, and FAXability Plus/OCR. Both are powerful, easy to use fax software for Windows. They not only work with Intel's new line of SatisFAXtion modems, but also many other Class 1 and Class 2 fax cards, from manufacturers like Zoom, Cardinal, Practical Peripherals, Everex, and many others.

FAXability Plus/OCR's installation program could be considered "polite" -- it asks you in which group you would like FAXability installed, instead of creating its own. Once that is accomplished, you can start to send and receive faxes directly from Windows.



The FAXability screen consists of several parts. The phonebook (shown above), the status of the faxmodem, the outbox, and the inbox. The phonebook has fields for the person's name, fax number, voice number, and a brief comment. There is no specific company field, so you would add the person's company after their name. There is no limit on the number of entries, and you can also create groups of people to broadcast faxes to.

FAXability will let you send faxes now, or at a later time. One benefit of using a CAS-compliant board with FAXability is that scheduled events will still take place when you exit Windows. FAXability also supports CAS-compliant file transfers.

The logs that FAXability creates can be sorted in a variety of ways. You can select to view faxes that have been read, or that are unread, that have been sent or are about to be sent (pending), and faxes that either had errors or terminated. The logs can be sorted by the time, the sender or recipient, or their status. When an error is encountered, you can double click on the log entry and you will given the exact error (i.e. Remote FAX unit did not answer, Remote hardware not compatible). The on-line help goes into detail and even offers tips on how to remedy the problem.

FAXability will let you view and print faxes very easily. Faxes can be rotated in a variety of ways, inverted, and can be saved as a PCX, or TIFF file. You cannot make annotations on it

like you can with some other Windows fax software (ZSoft's UltraFAX, or Delrina's WinFax Pro 3.0). You can also have OCR performed on the FAX, and have the results saved to an ASCII file, Excel, Pagemaker, Word for Windows, or one of the other 50 word processing, spreadsheet, and database formats. The OCR is only accurate on documents that are top-quality (if you are sending a copy of a fax that someone sent you, the quality of the image is degraded), and that haven't been skewed (rotated) more than 2 or 3 degrees. When faxes are in top-notch condition, however, FAXability transforms the fax into text at about 130-150 words a minute, about twice as fast as a skilled typist. FAXability Plus/OCR will also take a multiple column page, and create a single column ASCII file. For performing OCR, you should have at least a 386-33 with about 4MB of RAM free, and on my 486-25 with 8MB of RAM, the process ran quite nicely.

I have only two gripes with FAXability Plus/OCR. First of all, in order to scan documents, you need to have a scanner with TWAIN compatible drivers and software. This means an extra \$50 for owners of the Hewlett-Packard ScanJet Plus, one of the most widely used scanners. Some companies do not even have TWAIN software available yet. The second gripe is that FAXability Plus/OCR will not automatically print received faxes -- you must manually check to see if any new faxes have arrived.

Otherwise, FAXability Plus/OCR is a fine piece of work. It is easy to use, and has some interesting OCR features. Teamed up with one of Intel's new SatisFAXtion faxmodems, you will have a powerful communications solution.



## Intel FAXability Plus/OCR Program Information



Scott Drassinower  
WinOnLine Review

Intel FAXability Plus/OCR  
US\$249 List Price  
Intel Corporation Personal Computer Enhancement Division  
(PCED)  
5200 N.E. Elam Young Parkway  
Hillsboro, OR 94124  
(800)538-3373

# Cloud 9 Consulting

15 Lake Street  
White Plains, NY 10603  
Tel:(914)682-0626  
Fax:(914)682-0506  
CompuServe:71140,234



**Media Vision, Inc.**

The Most Complete Multimedia Upgrade System



*by Randy Wong*



Multimedia PCs are appearing everywhere. Multimedia products are appearing at the stores. It is time for me to look into this wonderful animated, musical, talking, and high resolution graphics world. The problem I encountered, is that I can not afford another machine with all the multimedia built in. The solution is to add or upgrade my current computer to the point where it will become a multimedia computer. I wanted to keep my computer and I did not want to spend a lot of money, so I should be able to add the new parts myself. The next thing that came to mind, was either buying the computer parts separately and hope that all the pieces will work together or look into a multimedia upgrade package. Getting all the right parts could very well cost too much. The multimedia packages were the way to go. I found that Media Vision had the right product for me, the Pro 16 Multimedia Upgrade System.



The Pro AudioSpectrum 16 sound card with SCSI interface.



A double speed SCSI Multimedia CD-ROM drive with all necessary cables.




A library of top name multimedia products for Windows.



A



Sound, music, and speech programs.

 A great selection of MIDI songs, digital sound effects, and 4 track music files.

 Drivers and DLL's for Windows 3.1 and Windows 3.0 with Multimedia.



The Pro AudioSpectrum 16 was a big step up in sound from my old SoundBlaster Pro. I had heard that there was a difference in 8 bit sound and 16 bit sound, let me confirm, there is. The sound card supports any applications or games that use the Sound Blaster, Adlib, Windows with multimedia, Thunder, and Pro AudioSpectrum standards. The built-in SCSI port gives you access to CD-ROM players, hard drives, removable cartridge drives, or any other SCSI devices. A four watt per channel amplifier is used to drive external headphones, speakers, or another amplifier. A standard IBM joystick port is also built-in. The Pro AudioSpectrum 16 gives you quality CD stereo sounds. Installing the sound card in a 16 bit slot was easy. The Pro AudioSpectrum 16 has selectable jumpers, just like any other sound card. The IRQ setting is selectable on IRQ 2 to 7 and IRQ 10 to 15. The DMA is selectable on channel 0, 1, 2, 3, 5, 6, and 7. You should leave it at the default settings. Since I had a Sound Blaster Pro installed, I modeled the settings exactly the same way, for a faster and safer installation. A MIDI interface can be had with an optional package, MIDI Mate from Media Vision.

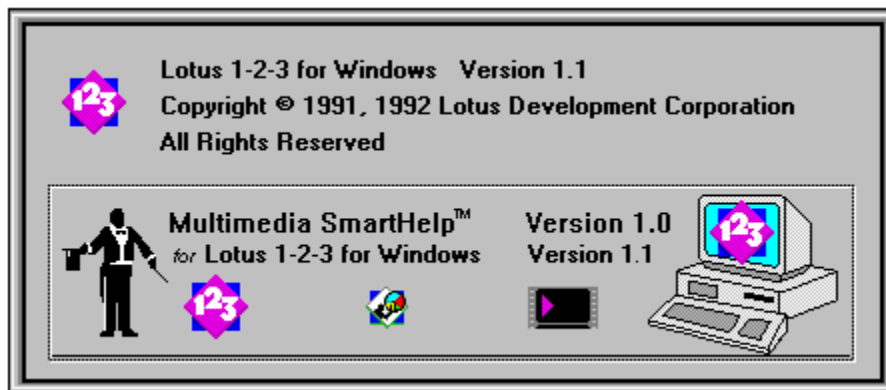


Media Vision made the right choice by adding the NEC double speed CD-ROM player. This is one of the fastest SCSI CD-ROM players currently available. For running multimedia

CD applications, you need a CD-ROM player that will transfer big chunks of data quickly and smoothly. The drive delivers a high transfer rate of 300 Kbytes per second, has a 280 millisecond access time, and 64K cache memory onboard. The drive is an internal model, and fits easily into a floppy drive bay. A cable is even included for connecting the CD-ROM player to the Pro AudioSpectrum sound card.



The Compton's Multimedia Encyclopedia from Britannica Software brings you the world's knowledge on CD-ROM. This is a special edition of the 1991 Edition of the encyclopedia. I do not know the difference between the special edition and the commercial version anyway. I do know that the multimedia Windows encyclopedia displays out nice pictures and quality sounds when looking up valuable information. There is also a timeline for selecting historical stories to read about. The product is not real heavy on the animation, sound, or talking pictures, but it is filled with much information. I am glad to see this product included. For now I can skip taking my kids to the library.

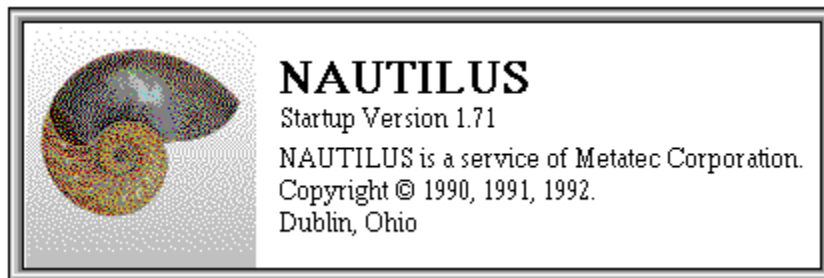


If you think spreadsheets are a bore to work on, Lotus Development has made an improvement in that area. Working with the mainline spreadsheet is basically the same as with Lotus 1-2-3 for Windows, but the catch is in the help facilities. Lotus 1-2-3 with Multimedia SmartHelp, can turn tedious learning about 1-2-3 commands into a presentation. This CD-ROM version contains a modified version of Lotus 1-2-3 for Windows and a linkup to their new multimedia SmartHelp facility. You may view the on-line help as you would normally, or you can turn it into a multimedia presentation. Sound, motion, and colorful graphics appear to show you how to use a certain command. There is a 50 minute movie, starting with an animated man presenting the highlights on stage. There is also an animated guided tour of all the features of

Lotus 1-2-3 for Windows, and a set of on-line talking books. This is a truly amazing thing to see.



Action! from MicroMind is a multimedia product that will allow you to combine sound, motion, text, and graphics together for a presentation. You could design a stand-alone self-running demo of something or just an action packed moving presentation. Graphics are imported with ClipMedia. The graphic file formats are Bitmap (BMP, DIB), Windows metafile (WMF), and Palette (PAL). I found it enjoyable making my name float around the screen, and playing music. It was not too hard to use, but I was glad that a manual was included.



Nautilus is a CD based multimedia information service. This multimedia magazine is issued to subscribers on a monthly basis. The trial CD-ROM disc is really an actual issue that they produce. The disc contains many sounds, images, MIDI files, shareware applications and games, and other multimedia information. The product is nicely laid out, starting with a table of contents display for moving around the magazine. They have made the first step in bringing out information supplied on a CD-ROM.



My kids have been a fan of the Sierra games since they were small. King's Quest V is an interactive role playing game. The multimedia CD version of the King's Quest V, not only took away the popup dialog boxes, but the characters actually talk to you. There are supposed to be over 50 voices used for the character voices, each with its own personality. A big improvement over the way role playing adventure games used to be. My kids would tell you that they enjoyed it, if they will ever stop playing it.

**As if that is not enough, there is more..**

For the creative users, Media Vision has included products to create and modify music, sound, and speech files. **The Stereo Studio F/X** is a PC Waveform Sound Editor for recording, playback, editing, and manipulating stereo sound files. From this product, you could import .VOC files to .WAV files. You can record sounds from a microphone, CD, or any other sound source. Then the sound could be modified with reverb, echo, and other fancy effects. The **Software Controlled Mixer** allows you to control CD-audio, digital audio, FM synthesized audio, microphone input, and the PC speaker. This is used to control the volume, bass, treble, and stereo enhancements of your sound card. The **TrakBlaster Pro** is a four track music studio for playback of sound tracks. Its display is filled with colorful graphics, which includes right and left VU meters. **Pro Speech** is the speech synthesizer software. You can have your computer read text, talk to you, and possibly sing to you. **Audio Mate** is a DOS multimedia application for attaching sound files to your DOS files. This works with Autodesk Animator, Animator Pro, Harvard Graphics, and even to some BAT files. **SP Spectrum** is the MIDI sequencer for composing and playback of music. You can only connect external keyboards and synthesizers with the optional MIDI Mate package.




### **The Bottom Line**



The Pro 16 Multimedia System is the best multimedia package I have found. If you are looking for 16 bit CD quality sound and a fast CD-ROM player, this package has it. Since the sound card and CD-ROM player are of the latest design, you will know that they are compatible with most of the upcoming applications and will be with you for a long time. The multimedia software included is among the best available. They covered education, business, presentation, current events, and games. That is enough to get anyone started in the multimedia world. As for

the installation, it was easy for me to install the hardware products myself. Since I mirrored the settings for the Pro AudioSpectrum 16 from my Sound Blaster Pro sound card, I called Media Vision for a simulated help run. They assisted me in installing the sound card, but without me actually working on the machine. I was also told that there were some problems installing this card in certain machines. Make sure you can return the product if it does not work for you. It is now movie time on my computer.

## Requirements

 Any Microsoft Windows based computer, a 386 and higher based computer is recommended.

 One free 16 bit slot on the motherboard.



One open drive bay, for installing the internal CD-ROM player.



Microsoft Windows 3.1 running in Standard or Enhanced mode.



MBytes and higher memory for certain Windows applications, 4 MBytes is recommended.

2



Approximately 20 Mbytes of disk space is required to install the setup files for the CD products and the sound products.



VGA and higher graphic resolutions, Windows with 256 colors or higher, will make multimedia products jump alive.



External speakers or headphone.



Any Windows pointing device.



For more information, please contact:





**Media Vision, Inc.**  
**3185 Laurelview Court**  
**Fremont, CA 94538**  
**510-770-8600**  
**Product Information: 800-845-5870**  
**FAX: 510-770-9592**

**List Price is \$1,195.00**



**Randy Wong**



**Computer News & Product Reviews**

© 1992, Windows OnLine™ IDS





**CRITICS  
CHOICE  
MEDIA VISION  
MULTIMEDIA  
UPGRADE KIT**

**MEDIA  VISION**

**Media Vision, Inc.**  
3185 Laurelview Court  
Fremont, CA 94538  
(510) 770-8600



PC Magazine's  
**THE BEST OF  
1991**  
*Pro Audio Spectrum*



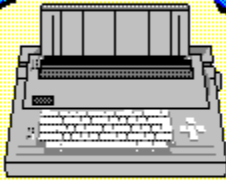
Microsoft ©  
Windows™  
Compatible







*Product Review*



*Randy Wong*

**Windows OnLine™**

510-736-8343

**The Media Vision Pro 16 Multimedia System  
was installed on a:**

**Legend 486-33, 64 cache computer  
16 MB of memory  
Maxtor LXT7213A 210MB IDE Harddrive  
Video7 VRAM II with 1 meg installed**



**Microsoft Bus Mouse  
2 serial and 1 parallel  
a 5.25" and a 3.5" floppy drive**



**LogiTech Scanman Color**

Several graphics and the leading title graphic  
was scanned with the LogiTech Scanman  
Color handscanner using FotoTouch Color  
Imaging Editing Software. Paintbrush and  
WinGif was using to do the final touches.



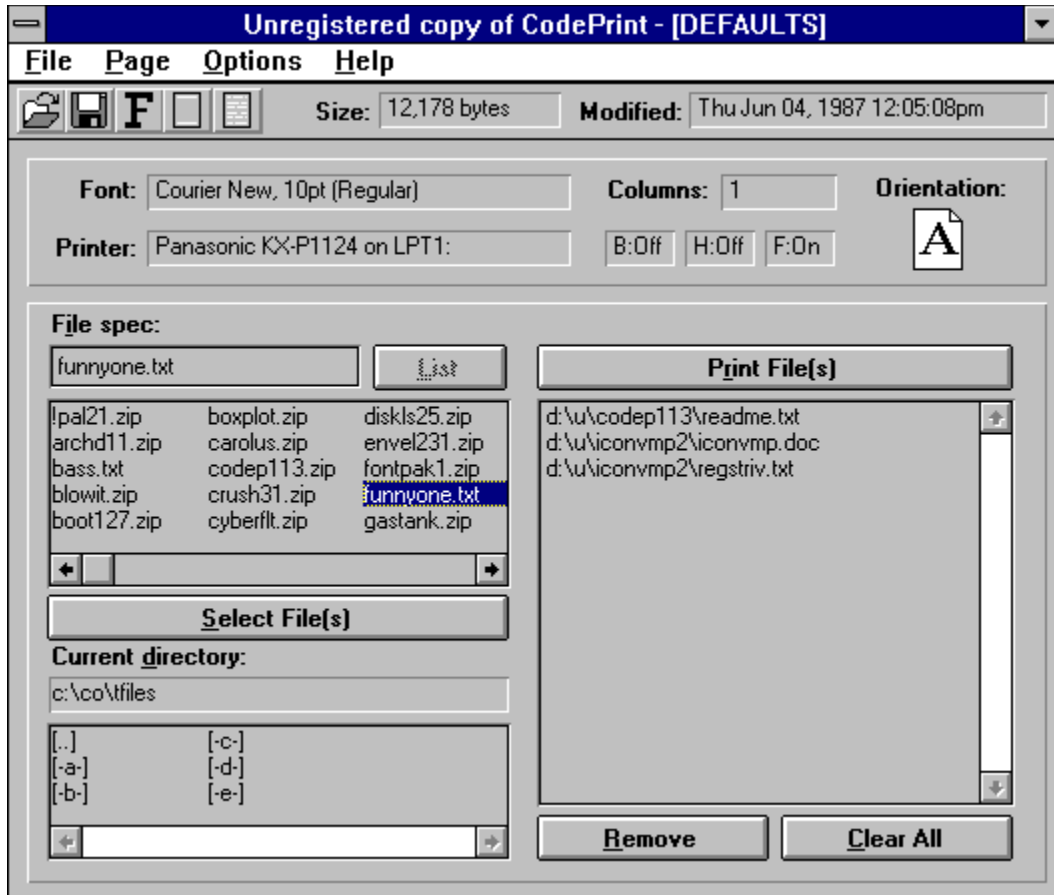
# CodePrint

version 1.13

a review by Bob Gollikur

Windows has taken us a long way towards reducing the paper glut of program documentation with its HELP system. Despite the advances, there are still times when we want to produce an ASCII file, or perhaps a program listing, on paper. CodePrint is a nicely written program that will print ASCII files in any number of formats.

CodePrint's file selection methods are instantly understood. Directories and drives are scanned with a commonly used Windows interface. Wildcards can be entered in the File Spec box to more narrowly define the filenames to be displayed. Highlighted files can be transferred to the box to be a member of the queue to be printed. Individual details of the highlighted file appear at the top of the dialog box.

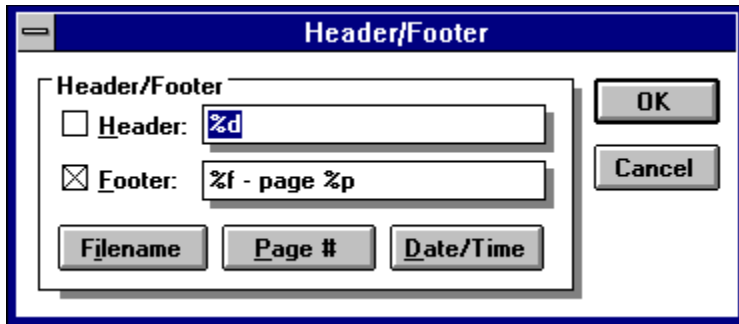


CodePrint is very direct in its operation. The output setup is revealed by a quick glance at the display. Specific configurations can be saved, and the name of the loaded format appears at the top of the CodePrint display. The font and default printer are displayed along with the on/off status of the **B**order, **H**header and **F**ooter. Page orientation is graphically displayed and the selected number of columns listed.

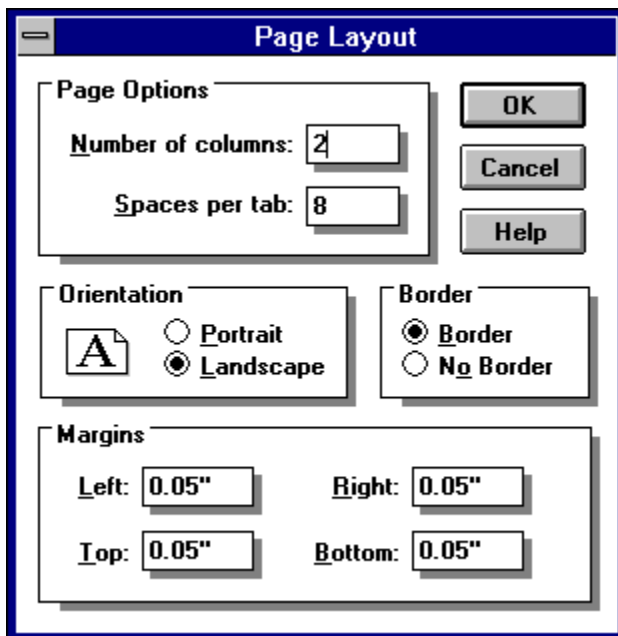
A five selection toolbar is available for quick access to program options:



Format details are accomplished through the **Page** menu option and a typical Windows font selection dialog box results from choosing **Font**. Specifications for **Header/Footer** are entered in a dialog box that allows inclusion of filename, page number, and data/time in the order you prescribe simply by clicking on the appropriate button.



**Layout** provides for portrait and landscape orientations as well as specifications for tabs, columns, margins, and options for the inclusion of a border.



Further **Options** include the ability to **Ignore Form Feeds** within the document being printed and the ability to **Truncate** lines that would ordinarily wrap to the next line. Neither option, however, can be retained as a part of a saved configuration. A somewhat annoying feature of the program is to precede any wrapped text with a "===>" character string. I presume that since the development of CodePrint likely resulted from wanting to print programming code, hence the name, the character is included to highlight wrapped lines. However, for more versatility and use with other text files, I'd prefer that it be an optional feature. You will probably want to determine, through trial and error, the best combination of font, size and columns for each of your saved output formats to avoid wasteful and distracting wrapped text.

On-line help is provided as well as brief text files. The help file is reasonably well-written but lacks the ability to scroll through topics as you might want when first learning a program.

Many topics are one-liners that would be better if combined for easier comprehension and less mousing around. Printing is straight-through; no options are provided for even-odd combinations to accommodate double sided copy or any booklet-style output.



## Summary

Registration for CodePrint is \$25.00 plus \$5.00 shipping and handling. As a result of registration, users receive the current version with the elimination of introductory screens, free on-line and mail support and update notification. Low-cost updates are also mentioned but not defined. CodePrint combines an attractive interface with well-designed ease of use. Considering its ultimate functionality, however, it seems to be a bit high in price.

As this review was completed an updated release, version 1.15 of CodePrint, was made available to the author. Two minor changes have been made to the program: a bug fix involving the registration form and an additional feature. Line numbers are now an added option in the Page Layout dialog box in the form of a check-off. CodePrint is available to members of Windows OnLine as CODEP115.ZIP.

For further information please contact:

Charles Parker  
Micro Software Solutions  
PO Box 851504  
Richardson, TX 75085-1504  
Compuserve 72230,47



written by

**Bob Gollihur**

*WinOnLine*

*REVIEW*

Staff Writer

# Maximum Micro

Success Company

---

*For Computers **People** Can Use*

**Robert S. Gollhur**

Seven Baywyn Drive, Ocean View, NJ 08230 609 624-0966





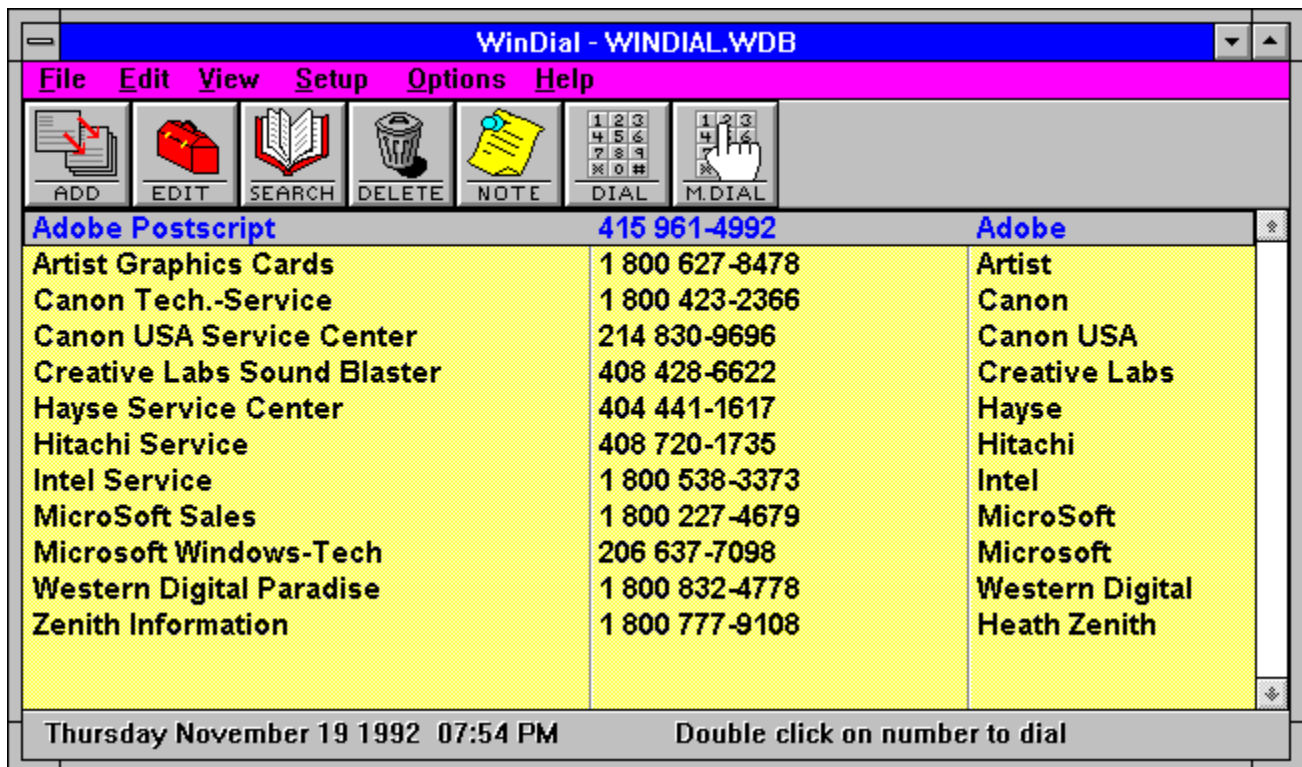
## **Please Register Your Shareware**

**Support the continued development of your favorite shareware. If you find a program of use, register it, tell the author what you'd like to see in future releases. If you think it too costly, or have a problem with it, write the author and present your case or ideas. Let's keep this fantastic method of software distribution alive!!!**



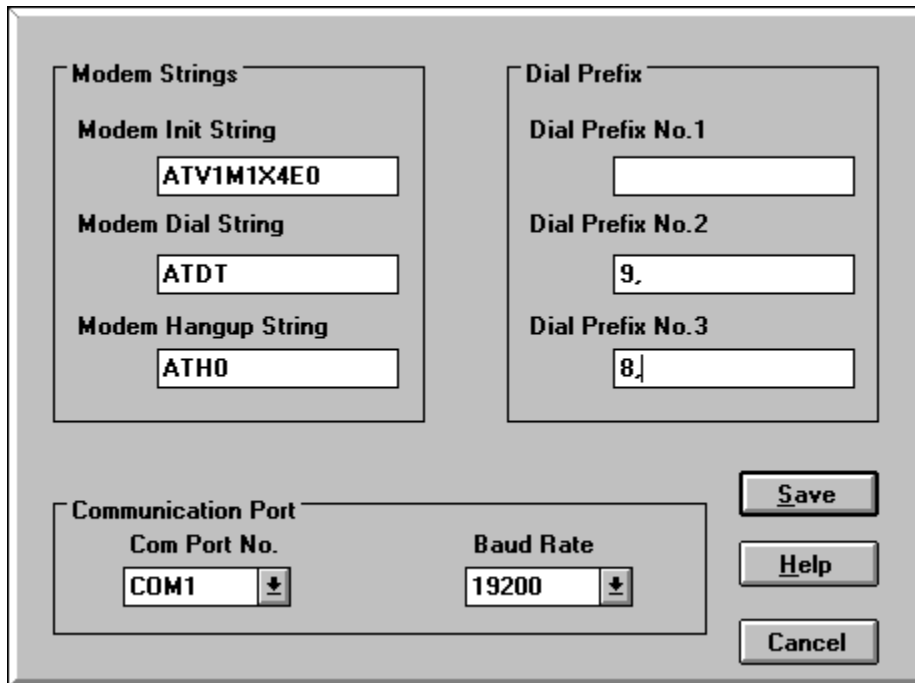
## Reviewed By Rich Young

I have run across a neat little shareware phone dialer from Dameware Development. WinDial 2.1 is simple, yet everything one could ever need in a phone dialer. I have always thought that a dialer would be more hassle than it was worth, but WinDial has changed my mind. WinDial is convenient to use and quite handy. Dialing a number is as easy as double-clicking on a name/number from your list. I was able to master the program within minutes without needing to refer to any documentation, of which the help file is all that comes with this version.



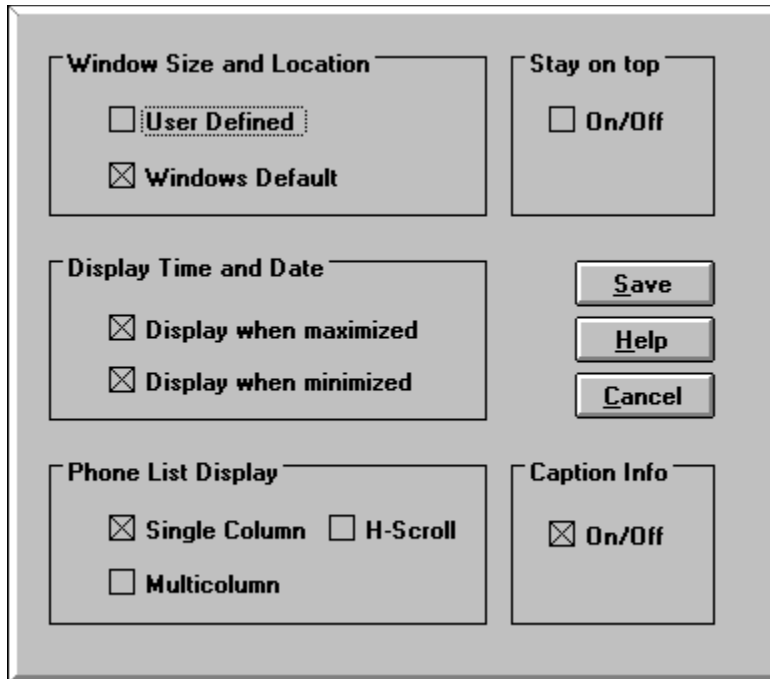
This is the main window you see after installing and launching the program. As you can see the interface contains the usual pull down menus with a button bar underneath. The columns contain all the information you wish to keep on each entry. You can sort by last name, first name, company name, city or state. Create as many different phone books as you wish.

The first thing I needed to do was the modem setup:



All I had to really change here was the com port and baud rate settings. The initialization string was just fine, as were the dial and hangup strings. If you need to dial a number to access an outside line, you just need to make sure to put it in one of the three Prefix boxes.

Then I went to the Options menu and chose Display to set the look of the directory from the following choices:



This display menu item offers five categories.

**Window Size and Location.** If the User Defined option is selected, the program will remember the size and location it was last displayed. The next time it is started it will have the same location and size. If the Windows Default option is selected, the program will start as a standard Windows program.

**Stay on top.** This function allows this program to stay on top of other programs whether or not it is active. This function is particularly useful if you are using full screen Windows and this screen is minimized.

**Display Time and Date.** These options will or will not display the time and date whether it is minimized or maximized. However, when it is minimized only the time will show. 12:09

**Phone List Display.** The single column option will display last name, first name, telephone number, company name, address and city, depending on screen resolution, font size and window size. If you, with the single column option, also select the horizontal scroll (H-Scroll), you will also be able to display the state and zip code by scrolling to the right. The multicolumn option will display only the last name and first name of each record which enables you to display more records at one time.

**Caption Info.** This option will allow you to turn on or off the information bar at the bottom of the window. **Note:** Clicking the right mouse button to the right of the manual dial button, will display the number of records in the current database.

Using WinDial is so simple, 90% of the functions are a click away on the button bar.

From adding numbers to the dialing, the button bar is complete. Now I just have to add my own entry:



This button brings up the Add Entry dialog box:

A dialog box titled "Add Record" with a light gray background. It contains several text input fields and three buttons. The fields are: Last Name (Spud), First Name (Idaho), Company (Tasty Taters), Address (1313 Mockingbird Lane), City (Boise), State (ID), Zip (90120), Phone (1-800-555-1212), and Prefix (empty). The buttons are Save, Help, and Exit.

<b>Add Record</b>			
Last Name	Spud		
First Name	Idaho		
Company	Tasty Taters		
Address	1313 Mockingbird Lane		
City	Boise		
State	ID	Zip	90120
Phone	1-800-555-1212		
Prefix			

Buttons: Save, Help, Exit

Here I simply fill in the information I wish to add to the database. Although WinDial is only a dialer, you still get the opportunity to store the full address for each entry, if you so desire. This can come in handy at times. When adding in the names, keep in mind how you are sorting your data, so it comes out the way you intended. If you make a mistake, or need to update any of the information for an entry, then just click on the next button:



And this will bring up the Edit Entry dialog box:

**Edit Record**

Last Name

First Name

Company

Address

City

State  Zip

Phone

Prefix

At this point, you get pretty much the same box as the Add Entry box. You can change any of the data already in place, or add data to the appropriate places. This way you can keep your data current.



This button allows me to find entries via a key word:

**Find What**

When your list gets big and you maybe have several contacts at the same company, you may want to search through a particular group for an individual number. For example you talked to a Fred at Adobe, but you forgot his last name. Type Adobe in the box and WinDial will find the first (and any subsequent) entry with the word Adobe in it. Or type in Fred to find everyone with that first name in you database. Hitting the next button takes you to the next entry that contains the key word you specified.



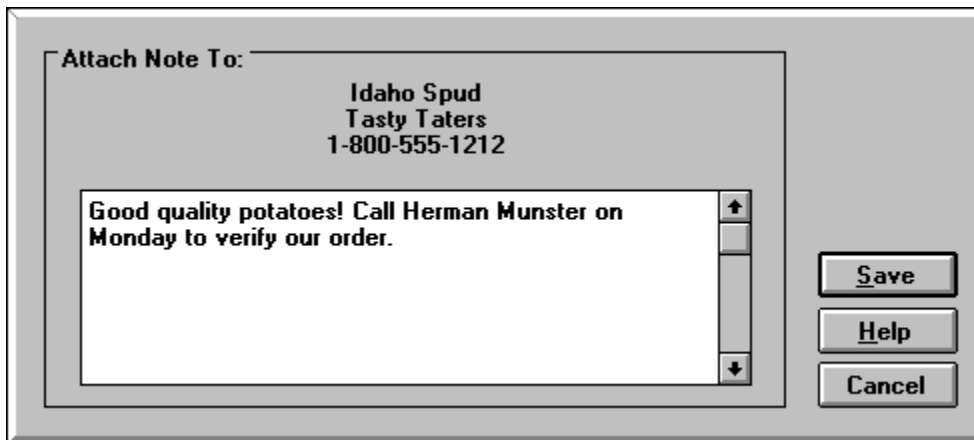
Hitting this button will delete the highlighted entry from your database:



When you no longer need to keep an entry, or that company went out of business, keep your data lean and mean by deleting those entries that are useless. Remember, a well groomed database is a happy database!



This button allows me to attach a note to an entry:



And what a handy feature this is. You can keep track of what you talked about last time, or need to talk about next time. Keep track of birthdays and other critical events. You can also store other reference phone or fax numbers, extensions or whatever your little heart desires.



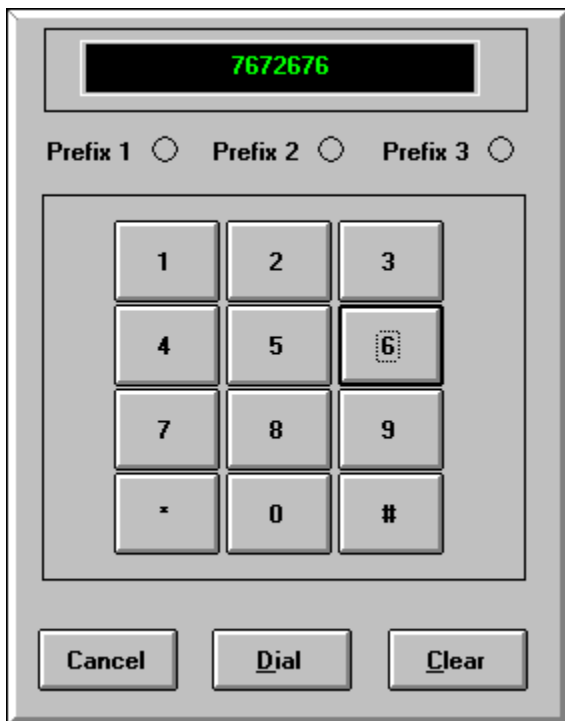
By clicking on this button, WinDial will dial the highlighted entry:



When this box appears, your modem has dialed the number. You then simply pick up the receiver and hit the Pick Up button to disconnect the modem. Your call has been placed! Keep in mind that this same action can be accomplished by just double clicking on the entry itself, which is more than likely the fastest method.



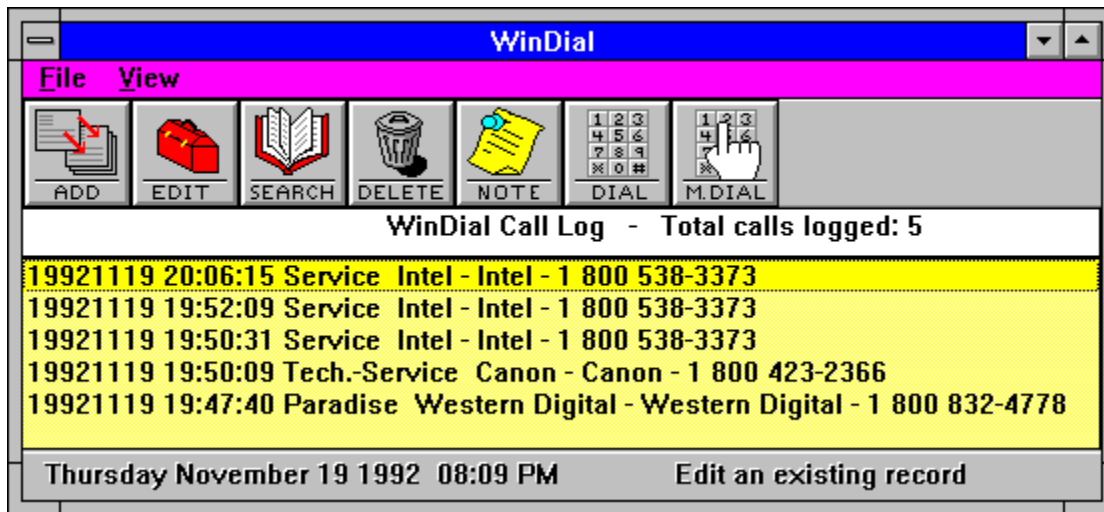
If you ever need to dial a number that isn't on your list, you can use the Manual Dial button:



Here you simply click on the appropriate numbers on the keypad and hit the dial button to place your call. It doesn't get any easier than this!

An added bonus to WinDial is the WinDial Call Log, which can be accessed from the View menu:





This is a particularly useful feature to refer to when you need to remember the last time you called an entry. It gives the date and time of call and the entry dialed. When you no longer want to keep the entries in the log, you just need to choose Flush Log from the File menu, or you can even print the log file out if you wish.

## In Conclusion:

I found WinDial 2.1 to be a fine utility, one that is surprisingly useful. The program is simple to operate and gives a host of features for a small application. This is one phone dialer that I would not hesitate to recommend to all users. I like the way the author had the kind foresight to let the user customize elements such as the background color and fonts in the directory window. I give WinDial 2.1 a hearty "thumbs up", to a job well done. You can register WinDial 2.1 for \$20.

You can try WinDial 2.1 for yourself, it's available to members now on **Windows OnLine** under the file name **WD21.ZIP**.

For further information, contact:

**DAMEWARE DEVELOPMENT**  
**4517 STALLION**  
**ORANGE, TEXAS 77630**  
**CompuServe ID 75020,1044**  
**Fax at (409) 883-5632**



Brought to you by

[\(Click\)](#)

[Rich Young](#)  
[Staff Writer](#)  
[Windows OnLine](#)

**WIN**

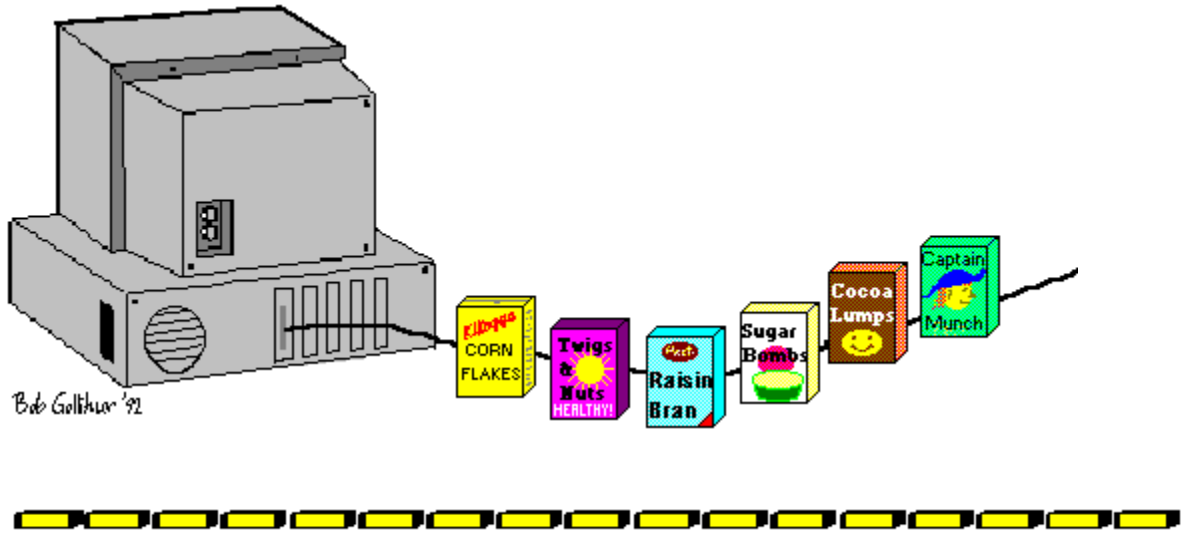
*grin*



[Click Here](#)

# What's the WindowWord?

(computer term represented by this cartoon)



# CEREAL PORT

(Serial Port)





written by

**Bob Gollihur**

Windows Online  
*the Weekly*  
Staff Writer

o **MEMBERSHIP APPLICATION FORM** o

**Windows OnLine**  
P.O. Box 1614  
Danville, CA 94526-6614  
(510) 736-8343 Modem  
Members Voice Support (510) 736-4376

Fill out the application below, sign, and include your check or credit card information. Your application will be processed upon receipt.

Date \_\_\_\_\_

Full Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

YOUR LOGON PASSWORD \_\_\_\_\_  
(10 characters max.)

VOICE TELEPHONE NUMBER (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

DATA TELEPHONE NUMBER (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

I understand that the sysop is in no way responsible for the files I receive from Windows OnLine and that as a member, I will not be subject to any upload or download ratio. The sysop reserves the right to cancel this membership at any time and refund the balance on a pro-rated basis.

The membership plan I have chosen is (please choose one):

[ ] 12 Month SUPER MEMBERSHIP or 2000 file downloads = \$ 199.00  
(120 minutes per day 5.00 mb per day download limit)

[ ] 12 Month FULL MEMBERSHIP or 700 file downloads = \$ 89.00  
(70 minutes per day 2.00 mb per day download limit)

[ ] 6 Month FULL MEMBERSHIP or 300 file downloads = \$ 49.00  
(60 minutes per day 1.25mb per day download limit)

[ ] 12 Months MAIL MEMBERSHIP includes 100 kb's per day = \$ 39.00  
(35 minutes per day 100 kb per day file download)

Payment by (please choose one):

- Check
- MasterCard
- Visa

CARD Number: \_\_\_\_\_ Expiration: \_\_\_\_ / \_\_\_\_

Total amount : \$ \_\_\_\_\_ Signature \_\_\_\_\_  
(Must be signed)



