

WINMODEM-PLUS (TM) Version 1.0

The original WinModem has become one of the most popular utilities in the area of Windows Connectivity. WinModem version 4.0 has been featured in Computer Shopper, PC World, and Windows Magazine, to name a few, as a must-have program. But there is always room for improvement. WinModem-Plus takes the proven WinModem technology yet another step, while retaining the key features of WinModem.

1. WinModem-Plus features a new face with a smaller footprint and more realistic-appearing lights for an improved desktop presence.
2. WinModem-Plus has a simpler configuration. We have removed the vertical display and concentrated our efforts on the more popular horizontal display.
3. Unlike WinModem 4.0, the caption bar on the WinModem-Plus display can be permanently removed for an even smaller desktop footprint.
4. WinModem-Plus is now able to automatically sense when a communications port is in use and configure itself appropriately. The new **SMART SENSE** feature makes setting-up WinModem-Plus a breeze. Of course, you may still manually select a communication port to monitor as in WinModem 4.0.
5. When operating in the **SMART SENSE** mode, WinModem-Plus minimizes itself to an icon when no communications port is in use. When a communications port is activated, WinModem-Plus displays its normal face without further intervention. This feature saves valuable desktop space when there is no communications activity, yet WinModem's useful display is available instantly when needed.

INTRODUCTION

One of the most popular accessories on modern PC's is the internal modem. Internal modems offer several advantages. They take no additional space on the desktop. They do not require additional power cords. And because they are internal, there is one less cable to add to the rats nest in the back of the computer.

Internal modems do have a drawback, however. **THEY HAVE NO STATUS LIGHTS.** Just as with a hard disk drive, there is something reassuring about seeing the lights flickering on and off. Without them, all is quiet and it may be difficult to determine what is going on. WinModem-Plus remedies this problem by providing a graphic representation of a modem's front panel, complete with status lights. With WinModem-

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Plus running, the internal modem is no longer a mystery.

By the way, even if you have an external modem or no modem at all, WinModem-Plus may be of value to you. Some PC users have located their external modems out of sight to regain that precious space. If that is your situation, WinModem-Plus can help. And due to its design, WinModem-Plus can monitor activity on any of the serial ports, even if there is no modem connected to the port at all.

SYSTEM REQUIREMENTS

WinModem-Plus is a Microsoft Windows application. To use WinModem-Plus Version 1, you must have installed Windows 3.1. And you must be running Windows on at least an 80386-based system. Since WinModem-Plus is a Windows application, it will not operate in the DOS box of Windows. And it doesn't work with applications that run in a DOS box. But it will work with any Windows communication application that employs the standard Windows serial port driver. There are no other special requirements.

USING WINMODEM-PLUS

Using WinModem-Plus is simple. The single requirement is that WinModem-Plus must be started **BEFORE** any other application that will use the internal modem. You can do this in one of two ways.

When you installed WinModem-Plus, an icon was placed in the accessories group. You may start WinModem-Plus by clicking or selecting that icon.

If you prefer, you can tell Windows to load WinModem-Plus when Windows is started. The following paragraph, from Windows 3.1 Help tells you how:

"During Windows Setup, a StartUp group is created. When you add an application to the StartUp group, the application starts whenever you start Windows. You can add an application to a group by creating a program item, or by copying or moving an existing program item. "

For more information about this approach, consult your Windows User's Guide.

Changing WinModem-Plus Settings

WinModem-Plus has a selectable title bar and no system menu, the familiar square box with a dash in the upper left corner of the window. Instead, we have provided a Windows dialog box that allows you to change WinModem-Plus's settings. To access the dialog box, double-click on the main portion of WinModem-Plus's display with your **left** mouse button. This will open the dialog box that you see below in Figure 1.

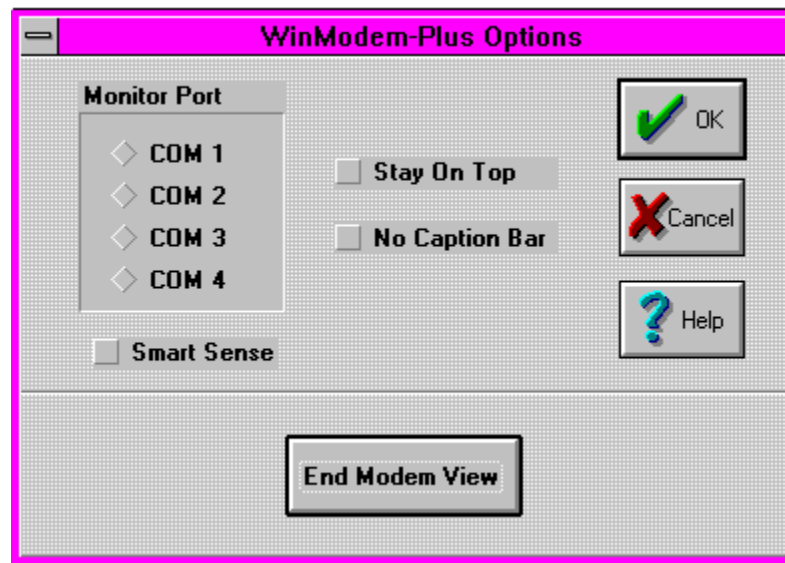


Figure 1

Switching Ports

Once WinModem-Plus is running, you must select the port that you wish to monitor, or you may select **Smart Sense** to activate WinModem-Plus' **SMART SENSE** feature. When **Smart Sense** is checked, WinModem-Plus senses which communications port is in use and configures itself appropriately. Regardless of the choice you make, WinModem-Plus will remember the setting from session to session. For many users, you will be happy with the **Smart Sense** setting which is the default.

If you want to monitor a specific port, you must make your selection in WinModem-Plus's Options dialog box. In the Options box, the port currently being monitored is marked by a black dot within a diamond next to the port name. In the example above, All port selections are not available because the **Smart Sense** box has been checked. To select a specific port, you must first make certain that **Smart Sense** is not checked. Since

WinModem-Plus does not intrude on the running application, you can switch ports at any time using the Options box. Of course, in **SMART SENSE** mode, WinModem-Plus senses the active port automatically, even if the port should change. The WinModem-Plus title bar always displays the currently active port in its title bar, if the title bar has not been removed.

Removing the Caption Bar

You may turn off the Caption by checking the **No Caption Bar** checkbox.

Even though you turn off the caption, you can still move the WinModem-Plus window to another location. Simply point to the window, click and hold the left mouse button, and drag the window to its new location. Of course, if the caption bar is present, you may also move the WinModem-Plus window by pointing to the caption, clicking and holding the left mouse button, and dragging the window as you would with any other Windows application.

Changing the Stay-On-Top Setting

When you first start WinModem-Plus, the WinModem-Plus window will always remain on top of other applications. If you find this behavior to be unacceptable, click the **Stay On Top** check box to erase the check. The WinModem-Plus window can then be overlaid by other Windows applications.

When you activate the WinModem-Plus **SMART SENSE** feature, the stay-on-top setting only takes effect when the port is active. When **SMART SENSE** detects the port is no longer active, the WinModem-Plus display is automatically minimized and the stay-on-top behavior is suppressed until the next time a port is activated.

A BRIEF MODEM PRIMER



Figure 2

Figure 2 shows WinModem-Plus's active window, approximately actual size and with its caption bar turned off. Each of the red lamps shown represents a particular modem signal. If the lamp is dull red, the signal is off. If the lamp is a brighter red, the signal is on. That seems simple enough. But what do each of the signals mean? We will attempt to give a layman's definition of each.

CTS - Clear To Send

The CTS signal is often referred to as one of the handshaking or flow control signals. It is the way in which the modem tells the computer when it is ready to accept more data. The modem raises or asserts this signal when data can be transmitted to it. CTS is often used in conjunction with another signal, RTS or Request To Send, that is asserted by the computer. The "handshake" occurs when the computer raises the RTS signal, seeking permission from the modem to send

data. The modem gives permission by asserting the CTS signal.

CD - Carrier Detect

The CD signal is used by the modem to indicate that a connection with another modem has been established, and that a good carrier signal has been detected. The carrier signal acts in much the same fashion as signals transmitted by your local radio or TV station. Data is impressed onto this signal so that it can be sent over telephone lines. No carrier, no data. This signal may also be referred to as DCD or RLSD (Data Carrier Detect or Receive Line Signal Detect).

RI - Ring Indicate

Many modern modems, particularly those that comply with the Hayes specifications, have several two methods of alerting the computer when the modem detects an incoming call. One method used by Hayes-type modems is a status code, either a number or the phrase "RING", that is sent to the computer as data. But not all modems comply with the Hayes specification. Virtually all modems, even the Hayes type modems, raise the RI signal to indicate the presence of an incoming call. The "Ring Indicate" is probably a misnomer, since few, if any, modems actually require that a telephone be connected to the modem. What the modem actually detects is the presence, on the telephone line, of a ring current.

MR - Modem Ready

As with CD, this signal also has another name. That name is DSR or Data Set Ready. Whatever you call it, MR is another handshaking signal. It is the modem's method of informing the computer that the modem has been turned on and is ready to accept instructions. Since it is a handshaking signal, you might suspect that the computer can assert a similar signal to let the modem know of its presence. And that is the case. The signal is called DTR or Data Terminal Ready. At least in theory, nothing else is supposed to happen between the computer and the modem until this first-level handshake takes place.

TD - Transmit Data

This signal indicates when the modem has received data from the computer to be sent over the telephone line.

RD - Receive Data

This signal indicates that the modem has received data from the telephone line that it is passing on to the computer.

Have you ever wondered why, if you have an external modem, the cable between the modem and the computer is so thick? The answer lies in the technical specification for the connections that are made between a computer and a modem. This specification is often termed the RS-232 standard. It makes provision for 25 separate signal lines. But on modern PC's, that number has been reduced to 9 or fewer lines. The RS-232 standard was designed to accommodate a variety of connections and situations, not just computers connected to modems. Of course, if you have an internal modem, the thick cable has been replaced by the simple connection directly to the computer through the modem's card slot.

NOTES AND WARNINGS

We have had reports that some suppliers of multi-port cards have bundled replacement Windows communications drivers that replace the normal Windows communications driver. WinModem will work with these replacement drivers as long as they behave in the same way as the original drivers. We cannot support drivers that don't conform to the original driver behavior.

The RI (Ring Indicate) signal may or may not appear to function. This is the result of a combination of several circumstances, including timing considerations within WinModem-Plus and the Windows serial port drivers. We are investigating this anomaly, but otherwise you should have no difficulty with WinModem-Plus.

The CD signal may be lit, even when your system is not connected to another. This is usually the result of the way options for the modem have been set. If you are using a Hayes-type modem, try typing this command to the modem while WinModem-Plus is running:

AT&C1<cr>

If the CD signal goes out, your modem has been set up to have the CD (or DCD or RLSD) signal always high or on. The above command instructs your modem to only turn on the CD signal when a connection has actually been made. On older modems, this setting may be made with either jumpers or dip switches inside the modem. To permanently set this option, please consult your modem's reference manual. Due to differences among the various modem manufacturers we cannot reliably give you advice on how to make the setting permanent.

WinModem-Plus has been tested on a variety of hardware. If you have difficulty on your particular system, please contact us for support.

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OBTAINING ASSISTANCE

Registered users of WinModem-Plus can obtain direct telephone support by calling Information Technology at (401) 625-5855 from 8:30 AM to 5:00 PM, EST. We regret that we cannot provide telephone assistance to unregistered users. For information about registration, see the file REGISTER.DOC that accompanies this package.

Registered users can also request assistance either by US Mail or electronic mail. Please see below for additional information.

Unregistered users may also request assistance either by US Mail or electronic mail. We are only able to respond to requests from unregistered users on an as available basis.

If you request assistance by mail, be certain to include enough information so that we can help in a timely fashion. We will need to know:

1. The version of Windows you are using.
2. The version of DOS you are using.
3. The number of serial ports on your system.
4. Any special communications drivers you have loaded.
5. A complete description of the problem you are encountering. Be sure to identify the software with which WinModem-Plus fails, e.g. Procomm, Windows Terminal.
6. Please enclose a self-addressed, stamped envelope.

Send your requests for assistance to:

Information Technology
730 Windwood Dr, #307
Tiverton, RI 02878

By electronic mail, send your request to

Compuserve: 70166,1152
America On-Line: RalphM1046