

Get your Fax Right

Gone are the days when modems transferred only computer data. These days, you will hardly ever find modems without integrated fax and voice capabilities

You might as well chuck your fax machine out of the window. The Internet boom has resulted in a dramatic increase in the number of modems installed in offices and homes, and just about everything that is faxable—memos, spreadsheets, letters—is generated on your computer. Why, then, should you waste money outsourcing your faxing needs, or invest in a separate fax machine? You don't need to do either if you have a fax-enabled modem connected to your computer!

If you have Windows, installing the modem is quite straightforward. Go to Control Panel > Modems > Add. If you do not have drivers for your modem, and the modem does not appear in the list supplied, just choose 'standard 33600 modem'. Once the modem is installed, go to Control Panel > Modems > Diagnostics. Select the modem and click on 'More



www.chip-india.com/october1999/fax.pdf

Information'. After the modem lights stop blinking, a report pops up. Somewhere in this report will be a line stating the faxing



Illustration: SEAN D SOUZA

capabilities of your modem—this should satisfy your curiosity.

Getting it to work

Once you have the modem configured in Windows, all that remains to be done is installing the right software. If your modem came with a few floppies or a CD, it is very likely that you already have some 'free' software for faxing. Unfortunately, this software is usually poorly designed and not particularly user-friendly.

Windows 95 comes with Microsoft Fax,

which has the basic functionality the 'average faxer' requires. Install it from Control Panel > Add/Remove Programs > Windows Setup > Microsoft Fax. Microsoft's intention was to have a single point for all message-based communication in the Microsoft Messaging client, including mail and fax. The result is a very confusing interface, so you will have to dig around a bit to get the job done.

The first time you run the client, a wizard leads you through configuring the modem settings. If you want to receive faxes while you are away from the com-

puter, turn on the auto answer feature. You could also choose to manually initiate the 'receive fax' function at any time.

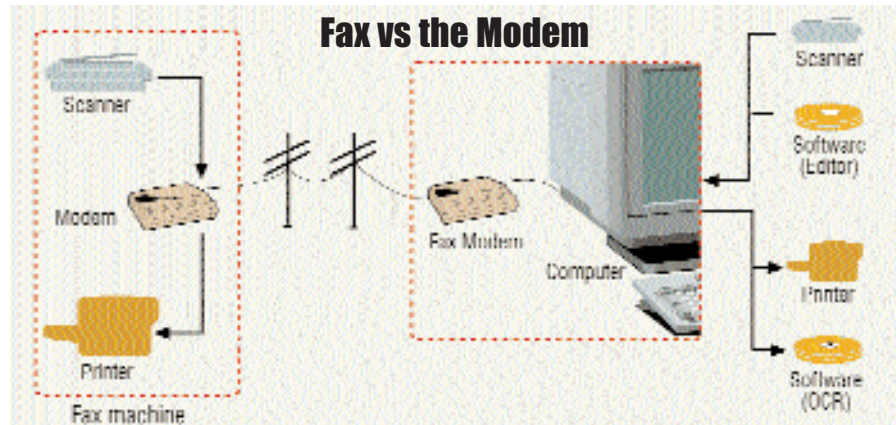
The fax utilities are located in Programs > Accessories > Fax menu. To send a fax, first create a document containing the material you have to send. Plain text files are fine, but any application that supports printing—such as word processors, spreadsheets and image viewers—can be used. If you want to send a cover page, you can use the cover page editor to create your own or modify an existing sample. Next, run the Compose New Fax wizard from the Fax menu. Point it to the correct cover page and the documents you want to fax. It automatically initiates printing on sensing applications it recognises (this includes the MS Office applications). The printing isn't done to an actual printer; the software merely creates a bitmap of the document to be transmitted. This bitmap image is now transmitted to a remote fax device.

To receive faxes, run the Microsoft Messaging client and set your modem's 'receive options' from Tools > Microsoft Fax Tools > Options > Modem > Properties. (Yes, you have to dig deep!) The fax is received and deposited in the Inbox as an image, which can be exported to BMP or TIFF format.

MS Fax has been dropped from Windows 98, so you will have to use the 'free' software you get with your modem. If you intend to do a lot of faxing, you should get a decent faxing application like WinFax Pro. If you need to fax once in a while, you could try 'Just The Fax' from the CHIPCD ([path: \ourchoice\jtf32.exe](#))

Watching your words

Fax documents are received as images. While you can read the text in them, editing is impossible. To extract the text from the fax image, it has to be processed by Optical Character Recognition (OCR) software. The OCR outputs either plain text or formatted text in a word processor format.



While a fax machine looks like a single device, it includes the basic functionality of three devices—a scanner, a modem and a printer. In the case of a fax modem, it is just the final component for a PC system where content can be manipulated in software (editor or OCR) but additional hardware is required for handling paper

There is no OCR capability in Microsoft Fax but most fax software have some form of OCR included. OCR output quality varies widely, depending on the quality of the fax image (which can be pretty terrible) and the software. If you intend to send and receive faxes frequently, a good OCR program is indispensable.

Saying no to fax machines

Buy a data modem and get fax for free! It doesn't get any cheaper than this. Though the 'free software' included is all right for occasional use, if you intend to use fax on a regular basis you might probably need to buy decent faxing software, setting you back by a couple of thousand rupees.

Fax modems are convenient to use. You already have a PC and if you are using it well, you will be generating all your fax content on it. Open the document in your fax software and click Send. However, if your fax document happens to be on paper, you may run into trouble. You have to either scan the document first or painfully type it out on your computer.

If you intend to receive faxes, your computer has to be on—not just the modem. Some modems offer fax/voice storage even

when the computer is off but they cost much more. Given the right software, fax modem can be used as part of information networks with features like fax-on-demand services, faxing lists and pager notification.

Fax machines cost more than fax modems. Fax machines are designed for one task only, and they do it well. They can be left on to independently receive faxes. Some 'intelligent' fax machines can distinguish between voice and fax calls, sparing the unsuspecting caller of the shrill screech that fax machines greet each other with. While the paper handling capabilities of fax machines are excellent, interfacing them with a computer is difficult.

Fax machines and fax modems can exchange faxes with each other and it doesn't matter whether you have a PC or a Mac.

The group says it all

A fax machine or fax modem converts a document into a low-resolution digital bitmapped image and transmits it over the phone line as an analog signal. Fax devices are classified according to the sophistication of the method used to transmit the image. The higher the group number, the better the fax device is in terms of phone call duration (see table). Of course, the fax device at the other end must support the same features too.

Additionally, while the modem may support data transfer rates up to 33.6 Kbps or 56 Kbps, the fax option can support a maximum of 14.4 Kbps, with step-downs to 9.6 Kbps and below. This limitation is inherent in fax protocol and is not a technological shortcoming.

CHARACTERISTICS OF DIFFERENT GROUPS OF FAX DEVICES	
Group 1	No processing is done. Takes about six minutes to transmit an A4 sheet
Group 2	The output analog signal is processed and compressed to achieve transmission of an A4 sheet in about three minutes
Group 3	Processes and compresses the document image to remove redundancy and achieve a speed of one page per minute on an A4 document. May incorporate Group 2 features.
Group 4	Used for sending faxes over digital connections like ISDN. These devices are very expensive and only worth it if huge volumes of faxing take place

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