

Board Meeting

What can you do with a modem? Electronic Bulletin Boards can be accessed by any computer owner, and provide the computerised equivalent of the club notice board

A home computer on its own is rather limited in its ability to communicate, but by way of a telephone it is possible to allow it to 'talk' to a whole range of other computers, whether these be powerful university mainframe computers, or wide-ranging public databases (like Prestel) or simply the home computer next door.

COMPUTER TELEPHONE DIRECTORY

(all 300 baud unless otherwise stated)

Bulletin Board Services		
Forum 80 Hull	1900-2300 wkdays	0482 859169
CBBS North East	1430-0100	0207 543555
Liverpool Mailbox	24 hours daily	051 4288924
TBBS Blandford	24 hours daily	02584 54494
TBBS London	0900-0100	01 348 9400
Mailbox80 Stourport	1800-0800 daily	0384 635336

Commercial Services		
Rewtel	24 hours	0227 232628
Maptel	24 hours	0702 552941
Distel	24 hours	01-679 1888
Estelle	0700-1800	0279 443511
Estelle (1200/75)	0700-1800	0279 441188
Prestel (1200/75)	24 hours	depends on area
Micronet 800	24 hours	Prestel page *800

Using the 'Bulletin Board Services' (BBS) you can leave messages for other home computer users, advertise goods for sale and even swap programs. A BBS is really the electronic equivalent of the cork bulletin boards found in most club buildings. They are usually set up and run by volunteers using an ordinary home computer with a large storage device such as a disk, and can be accessed by anyone. Distance to the other computer is no object: you can access machines in your own town, at the other end of the country, or even overseas. The only restriction, of course, will be your telephone bill.

Before your home computer can start 'talking' on the phone, however, you need a piece of hardware to connect the two together. Such a device is called a modem (see page 108), and this plugs into the serial (RS232) socket at the back of your computer. Some home computers, such as the Vic-20 and the Spectrum, do not have such a socket, so you might also need to buy a serial interface card to plug in the back. The modem is connected to your telephone line either directly via an extra phone socket, or acoustically using an acoustic coupler. There are two modem 'speeds'

(baud rates) in general use: 300 baud and 1200/75 baud. The commercial operators, such as Prestel and British Telecom, use the higher speed of 1200/75 whereas the BBS (which is mostly for home computers) uses 300 baud. 1200/75 means that information is sent to the user at 1200 baud, and from the user to the central computer at 75 baud. Of course, it is preferable to buy a modem with switchable baud rates. Recently, the price of modems has fallen considerably and you can now buy a 300 baud battery-powered modem for about £80. If your modem is a 'direct-connect' type, then you will also need to rent an extra socket for it from British Telecom.

To operate the modem it is also necessary to obtain software that allows the machine to function like a computer terminal. Two types of terminal software are available — 'dumb' or 'smart'. A smart terminal can download programs and save messages from other computers. A dumb terminal is unable to do these things, but is easier to set up and so is more suitable for your first attempts at communicating. Such software is available for the 'older' home computers, such as the Apple II and the Tandy TRS80, as well as for some of the newer models — BTERM is such a program for the BBC Model B. For other computers, this software will often be supplied free of charge by their user groups. If this is not available, it isn't too difficult to write your own 'terminal emulator' software. What you need is a program that sends any characters typed on the keyboard to the RS232 socket, and displays data received from the socket on the screen.

To illustrate how to use a modem, let's go through the steps involved in communicating with a BBS. First, you need to find out the phone number and technical details (such as the baud rate) of the computer you want to access. After running the communications software on your computer you dial the phone number. If the remote computer is 'listening' you will hear a high-pitched tone in the earpiece. This is the 'carrier tone'. If you are using an acoustic coupler, you just insert the receiver into the rubber cups. With a direct-connect type of modem you flick the switch marked 'LINE' or 'DATA' and replace the receiver. Either way your computer should now be connected.

The first thing you will probably see is some kind of 'greeting' on the screen, generated by the computer on the other end of the telephone line. You will then be asked for your identification and/

TELECOM GOLD

Electronic Mail

Telecom Gold is British Telecom's system of electronic mail, a more sophisticated version of the Bulletin Board Services aimed primarily at the commercial market.

Registered users can rent a 'mailbox' on a British Telecom minicomputer, to which other users can 'post' messages. These messages can then be read or copied onto the user's computer. Using Telecom Gold, it is possible to access other electronic networks in other parts of the world, with the advantage that all the technical differences between the various users are handled automatically by the network computers