

# Pace Micro Technology

# COMMSTAR



## INFORMATION

### **COMMSTAR: INTEGRATED COMMUNICATIONS FOR THE BBC MICROCOMPUTER**

Integrated Viewdata/Prestel and ASCII communications software for the BBC micro-computer. Its function is to provide a software interface between your BBC and the outside world, the hardware interface being provided by the BBC's built-in RS423 interface and a modem such as Nightingale. Once the Commstar ROM is fitted to your BBC you will be able to transfer information freely between it and a host of other computer systems, be they micros, mini or mainframe computers.

In its simplest form, communications involves sending and receiving ASCII characters and this is the manner in which the original mechanical teletypes communicated with their host computer. When 'glass teletypes' or VDU's were developed, communications remained much the same but with the addition of certain features such as clear screen and true character delete (operations which could not be carried out on a teletype). This type of comms became known as 'scrolling screen' and is still in wide use today.

In more recent years, two major developments have changed the face of communications, namely the Viewdata system and intelligent terminals. Intelligent terminals are terminals which have some processing capability of their own and possibly their own memory. This means that they can interpret and execute quite complex commands from the host computer. The idea behind this is to offload some of the work from the main computer onto the terminal. Programs such as word processors running on the main computer can then simply pass command strings to the terminal for it to execute directly.

Viewdata systems work on a different basis. Simple 'block' graphics and text are used to build up combinations of text and pictures on the terminal screen in colour and rather than have a scrolling screen, when this screen is filled it is completely replaced with a new screen. The screens are referred to as frames and a system such as Prestel may hold several hundred thousand such frames. Once again, some intelligence is required in the terminal to be able to interpret the commands and build up the frames correctly.

The descriptions above are obviously brief in nature and there is far more to communications than could be explained in this leaflet. The point is that the type of systems with which you might wish to communicate are many and varied. Any communications program that you use should cater for as wide a range of systems as possible. Commstar does just this!

### **COMMSTAR — THE FEATURES**

Commstar is menu driven so that there is no need to remember complex commands, in addition full use is made of the BBC's function keys thus further enhancing Commstar's user friendliness. The program operates in one of two modes, scrolling screen (Terminal mode) and Viewdata (Prestel mode) and can therefore communicate with a huge variety of host systems. Any MOS command can be executed from within Commstar and full error-handling ensures that illegal operations are handled sensibly so that the appropriate remedial action can be taken. When used in Mode 7 an elapsed time clock is displayed both at the command menu and while on-line, a useful feature for keeping track of call costs.

Terminal mode allows the BBC to operate in a manner comparable to a normal VDU. It does however employ a high degree of intelligence in the way that it allows you to manipulate incoming and outgoing data. Most importantly is the ability to optionally 'buffer' incoming data



in the BBC's memory. From the buffer you may then view the data off-line (with speed control), save it to disc or tape, print it or even send it back out again. Alternatively, data may be spooled straight to your disc and/or printer. Any of the BBC's screen modes may be used giving 40 or 80 column capability when on-line to a host system.

Other terminal features such as Echo, line-feeds etc. can all be adjusted to suit different remote systems. The speed of communication, referred to as the baud rate, and the data format, are selected from a simple table prior to logging on the host. Speeds from 75 baud up to 9600 baud and a full range of data formats are allowed.

A special File transfer option is included which uses the well-known XMODEM standard for error checking of transmitted data. Data sent over telephone lines is prone to errors caused by 'noise' on the line. XMODEM overcomes this problem by carrying out complex checks on the data as it is sent and received. This means that ANY type of file including Basic or machine code programs, and data or word processing files, can be transferred between two Commstars, or Commstar and another comms package that uses XMODEM, with absolute safety.

At a simpler level, XON/XOFF flow control is fully supported. Function keys allow the transmission of a 'Break' level or "ESC" characters for those remote systems which require them. Furthermore, your own passwords, identity codes and other logon strings may be programmed onto the function keys so that you can send them with a single key press when you are ready to logon. For convenience, key definitions may be saved on disc and loaded prior to using Commstar thus allowing the creation of several configuration discs for use with different hosts.

One other command, <G>et emulation allows user configured files to be loaded for the purpose of emulating more specific terminal types or to allow access to optional software such required for auto-dialling.

Viewdata mode operates to the CET standard and makes full use of the BBC mode 7 screen to display the teletext graphics including Double height and flashing characters, reveal and conceal. Once again, extensive use is made of the function keys.

The telesoftware downloader is operated from function key f5 as standard and Commstar is fully supported by Micronet where special instructions for downloading are required. A page tagging and retrieval facility (up to 25 pages), when on-line allows pages of particular interest to be marked for easy retrieval at a later stage during the session. A copy of any viewdata frame may be saved to tape or disc using the BBC's COPY key. This can then be printed or viewed later. For convenience the BBC's Return key is re-mapped to generate the # character so frequently used on Viewdata systems.

These are just a few of the features of Commstar. Overall, it is an outstanding and unique piece of software, a fact proven by its universal popularity and its nomination for the 1985 British Micro Computing award. It will operate with many popular modems and is particularly suitable for use with the Pace Nightingale. At only £34 including VAT, Commstar is supplied on ROM with a comprehensive manual, function key legend and fitting instructions.

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