

holidaymaker has to decide whether he will book travel and accommodation separately or opt for a package deal, and that decision will prompt his exit route from the page. As an alternative means of page selection, Prestel have also issued a Directory, from which the user can make immediate selection. For example, he can be referred directly to the page that lists a specific airline or hotel chain.

We chose travel as our example because it represents the largest single use of the entire system in the British Isles. Travel agents, in particular, are among Prestel's most enthusiastic supporters.

Conceived at British Telecom's research laboratories in 1971, the first viewdata system was in operation by 1976 in an in-house trial, and available to the public as Prestel in late 1979. British Telecom had originally called their first system Viewdata, but were forced to change to Prestel when it was ruled that viewdata was a generic term.

Viewdata is perhaps unique in that it became an accepted standard both nationally and internationally from its inception. A variety of computer manufacturers and telecommunication companies started producing systems of their own that use Prestel's protocols and data structures. The effect has been to create a world-wide network of local databases, all of which are accessible to any subscriber.

Viewdata systems require a telephone line to be open all the time they are in use and the user incurs this charge over and above any connection into the viewdata service. Additionally, there is the

Distribution Network

The Micronet 800 service allows subscribers to acquire software directly from the central Prestel computer system. To use the system, it is necessary to receive the viewdata signals into a conventional microcomputer (not just an adapted domestic television), and then store the program either on cassette tape, or on disk, from which it can subsequently be loaded and run normally. Micronet offers around a hundred programs free of charge, with many more available at commercial rates. Micronet is available on most of the popular microcomputers, including the BBC Micro, some of the Commodore models, the Spectrum and the Apple II. Micronet subscribers also have automatic access to the rest of the Prestel database

possibility of a third charge for the particular frame retrieved, but this is at the discretion of the information provider. There is also a small annual subscription. In an attempt to reduce users' telephone charges, Prestel have installed a number of 'local concentrators' — trunk telephone lines dedicated to the system — that connect a caller in, say, Glasgow with a number in London at local call rates.

The hardware required to use viewdata services is divisible into three main types. Most sophisticated, but also most expensive, is the purpose-built viewdata terminal. The majority of commercial users opt for this. The second alternative is to fit an adaptor to a domestic television set. There are a variety of such adaptors,



Travelling Light

One of the most popular commercial applications for Prestel is in travel agents' offices. Airlines, in particular, have very sophisticated booking and ticket-issuing systems, though they all run on separate computers. Prestel allows agents access to most of these systems, and enables them to book tickets and reserve seats directly.

In addition, as shown in the picture on the left, it is possible to call up information about the arrival and departure of flights at United Kingdom airports. Users can also be warned about schedule changes

ranging from a simple numeric keypad with manual telephone dialling to a typewriter-style keypad with fully automatic dialling. But at the heart of all of these devices is a dedicated microcomputer that decodes the incoming and outgoing signals. The third method, popular with home microcomputer users, is to buy viewdata software for a standard micro. This has become particularly attractive since the introduction of a service known as Micronet 800, which offers subscribers the ability to load computer programs directly over the telephone line. Furthermore, these adaptors will usually permit a Prestel page to be saved on disk, thereby eliminating the need for a constant open telephone connection.

Prestel also enables subscribers to leave messages for each other via a service known as Mailbox. The subscriber is notified of a waiting message either as he switches on his Prestel terminal or, if his terminal is already in use, when he finishes a call. He can also check for messages at any time during a call. It is not necessary, as one might think, to have access to a full alphanumeric keyboard to send a message. There are a variety of standard 'message forms' that can be completed using numbers alone.

By mid-1983 there were some 35,000 Prestel subscribers in the United Kingdom, with more than a quarter of a million pages of information available to them, and an unknown number of companies and organisations using the viewdata specification for their own in-house database enquiries. This entire system and specification has been created in less than 15 years.