

STARS ON SCREEN

The BBC Micro is the machine used in the majority of British schools, and it is therefore hardly surprising that a large amount of 'educational' software has been developed for it. Here we look at one such package — Starfinder, a program that is designed for amateur astronomers.

Astronomers, especially the British variety, have always faced one problem in particular — that of the weather. It is not uncommon for professional astronomers to spend weeks preparing for a particularly stunning event, only to discover that dense cloud has obscured the view. This is the reason that most observatories are now built at high altitude, in places where there is little cloud, or even in space.

Century Software has now brought the universe to the small screen with Starfinder, a package containing cassette software and a book. In essence, the Starfinder program allows the user to

is the star chart itself, which shows the night sky from the south-west to the south-east, assuming an altitude (the angle of view) of 60°. The program takes a few seconds to display the stars themselves, as a large amount of number-crunching is required to process and then plot each of the stars.

The stars are shown as white squares (the program runs in mode 4), and brighter stars are depicted as being larger. It is a pity that the Acorn machines do not have a 'brightness' command, which would make the display more realistic. Planets are also square-shaped, but are plotted in red, while the sun is represented by a large yellow square and the moon by a small yellow point. By using the 'space probe', which is moved by using the cursor keys, it is possible to identify any of the stars shown. When the space probe (a red cross) is positioned over a star, that star's technical designation and popular name are shown above the map, together with its co-ordinates, given as an altitude and an azimuth figure (the altitude is expressed as a positive or negative figure, with the horizon as zero; while the azimuth shows the number of degrees east or west of due north). The view may be changed from the keyboard by altering either of these figures.

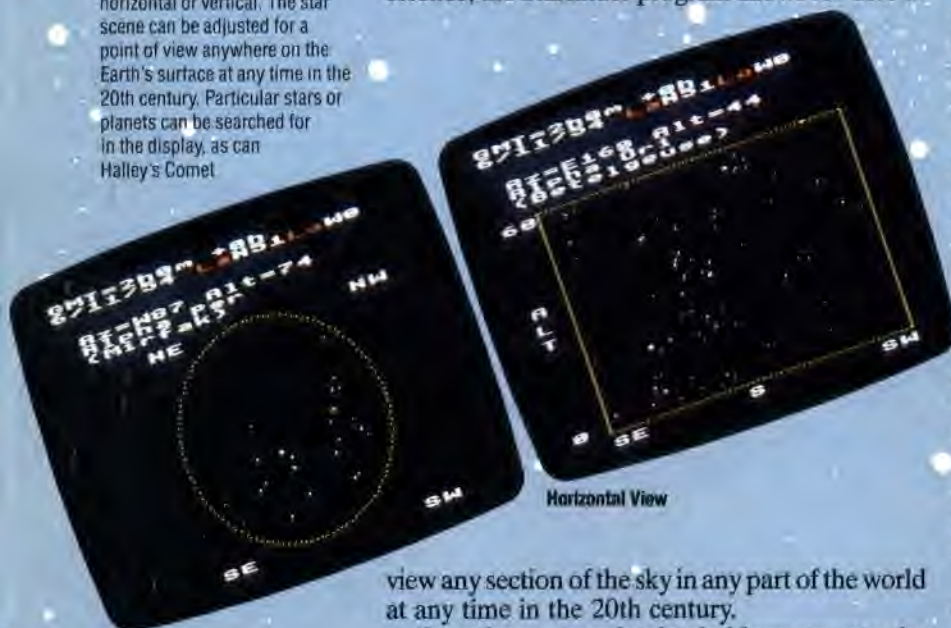
By returning to the main menu, the user may change the view to correspond to that revealed at any time, anywhere in the world. It is also possible to use the program to find a particular heavenly body: a star, a planet or Halley's Comet.

Although this package is comprehensive, it does have limitations. The primary restriction is on the number of stars that may be displayed. The programmer, Robert Alpiar, has chosen to include stars of a magnitude of 4 or lower ('magnitude' refers to a star's brightness, with a high magnitude representing a faint star). The naked eye is capable of discerning stars of magnitude 6, so the program does not claim to show as many stars as a person might see on a clear night.

The book that is included with the program explains the use of Starfinder, but also includes other tips for amateur astronomers, including advice on different types of telescope and the best times to view planets and stars.

Starlight, Starbright

Starfinder's two display modes give a rectangular or circular skyscape depending upon whether the line of sight is horizontal or vertical. The star scene can be adjusted for a point of view anywhere on the Earth's surface at any time in the 20th century. Particular stars or planets can be searched for in the display, as can Halley's Comet.



Vertical View

Horizontal View

view any section of the sky in any part of the world at any time in the 20th century.

Once the program has loaded from cassette, the user is given a list of options. One of these is to view the current sky; the default view is of the sky as seen when looking south from London at midnight (Greenwich Mean Time) on 21 November 1984. This seems to be purely arbitrary, as there is nothing special about the view of the sky on this date: it's likely that this was designed to coincide with the package's launch date rather than with a specific cosmic event.

At the top of the screen, the program displays the time and date, and gives the observer's location in longitude and latitude. Below this information

Starfinder: For the BBC Micro and the Electron £12.95.

Publishers: Century Software, Portland House, 12-13 Greek Street, London, W1V 5LE.

Authors: Book by Heather Couper, program by Ronald Alpiar.

Joysticks: Not Required.

Format: Cassette.