

Microdrives unravelled!

by Sid Martin and Timothy Green

Shopper's QL wizards check out Alan Pemberton's new adventure, *Starplod*, and unravel the mechanical mysteries of microdrives

STARPLOD is a new game from CGH Services, written by *Tower of Valagon* author Alan Pemberton. You play the part of an astronaut, far from Earth and in trouble.

In the year 2088, population pressure drove you and 9,999 others to embark on a vast space-ship, in search of a fresh, unspoiled world. After a couple of million years frozen in cryogenic storage, you defrost to find your space-ark is stranded, in urgent need of moronium crystals.

It transpires that humans perfected interstellar travel soon after your departure, so the planets around have already been spoiled. Nonetheless, you urgently need to fix your ship and cope with a few other problems, like a big threatening Irkoid space cruiser...

As you might expect from the name, *Starplod* owes a lot to the classic TV series *Star Trek*. The game starts on board a shuttle craft near your Space Base. Your 'hyperdrive' allows you to move to an orbit around five planets, back to Base, or close to the Irkoid space-ship, which Captain Kirk would surely identify as a Klingon. A map of the solar system is shown while you choose your destination, and the 'Gal-Phone' gives you the option of calling in advance.

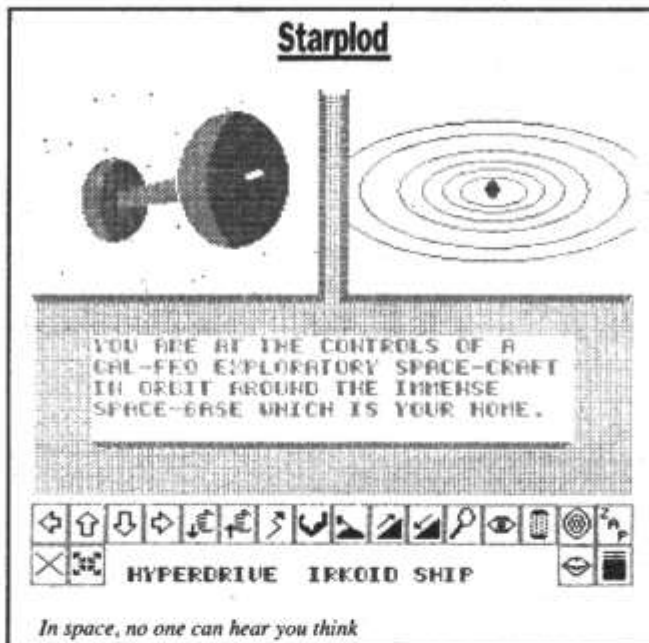
Once in orbit you can use the 'Standard RS234 matter transfer protocol' transporter (with hand-ahaking) to beam down and explore the planets further - but look before you leap.

There are only a handful of locations on each planet, but useful objects, space-monsters, friends and foes are scattered around the system. You must find and exploit them in the right order to complete the game.

Earlier Pemberton titles were standard format 'adventures', in which you typed short commands in response to text messages. *Starplod* has a much neater user-interface, although the underlying puzzles and humour are similar.

Play is controlled with a joystick or arrow keys, at your own pace. You use the stick to point at actions and objects displayed on the screen, so there's no need to guess words.

The display consists of descriptive text, object lists, colour pictures of the solar system, and various scenes on and under the surface of planets.



You can examine objects, analyse words from the description, or call up scientific reports. These tell you the name, size, history, temperature and atmosphere of each planet.

Space mechanics

You play the game by selecting between icons - small pictures at the bottom of the screen which correspond to a range of actions. You choose with the stick or arrow keys, and select by pressing the space key or joystick fire button. Corresponding words appear as you highlight each icon, so you don't have to guess at the meaning of the pictures.

Some actions are associated with objects - for instance, you must say what you want to discard after selecting DROP, or what you want to THROW, and where.

Objects are specified much like icons, either by highlighting words from the text description in the middle of the screen, or by picking an item from the lists of objects carried and nearby.

Each location has its own MODE 8 picture. The graphics are not detailed, but still, they add a lot to the game; in style they resemble the graphics used in the old Spectrum adventure *The Hobbit*, although *Starplod* colours them in more quickly. The scenario is cliched, but the accompanying text is evocative and often mildly amusing.

Starplod was written in SuperBASIC and compiled with the budget version of *Q-Liberator* - thus it is incompatible with *GRAM*. You can run it from floppy disk or microdrive, with a choice of icons for monitor and TV displays.

If conventional 'adventure' games have not appealed because of their limited vocabulary and slow pace, you should find *Starplod* interesting.

Control is easy and satisfying, whether you use a joystick or cursor keys. For once you don't have to worry about whether you're using the right words. The disadvantage is that the options seem rather limited, compared with a text game where you can try all sorts of things that the program won't understand. Play is less frustrating, but it doesn't last as long.

Captain's log

Starplod costs £8 on microdrive cartridge or 5.25" disk, with a 10-page A4 manual. Members of The QL Adventurer's Forum get £2 discount. Another £2 discount is available to anyone who sends a stamped self-addressed envelope and their own disk or cartridge.

These prices may seem off-puttingly low compared with other QL software, but that's because *Starplod* is good value. The publisher, Richard Alexander, is in the final months

of an 'Enterprise Allowance' scheme which has paid him £40 a week to escape from the dole queue and put a spark to the QL Adventuring scene. He deserves encouragement because his offerings are a fair bit more imaginative than most QL games.

QL Public Domain

CGH Services has taken on distribution of some Public Domain QL software, at £1 each; at this price, you must supply one microdrive cartridge for each program with your order. *Ye Classical Adventure* is an early Pemberton offering written with *The Quill* adventure-writing system - not to be confused with Psion's *Quill*.

Starburst is a 'space cavern exploration' game, in which you run around dozens of interlocking screens shooting things. It's interesting enough to be worth mapping, and we found it quite addictive even though the graphics and controls are rather rudimentary. *Starburst* was originally published by Blue Crystal Software, at £12.50.

Cavern Frenzy is a Shareware program by Fraser Harkins, author of *QL Risk*, reviewed here in November. This is a Boulderdash-style game, where you move a character around a grid, taking care not to trap yourself behind sliding objects.

The program is a compiled task and comes with the corresponding SuperBASIC source, but you'll need DP's *Turbo* and *Super Sprite Generator* to edit and re-compile the code. *Cavern Frenzy* costs £1 a tape; you're requested to send a small donation to the author if you like it.

Contact

CGH Services, Cwm Gwen Hall, Pencader, Dyfed, Cymru SA39 9HA.

Microdrive spotting

Sinclair must have sold millions of microdrive cartridges to Spectrum, QL and One Per Desk users in the last five years. The design has changed several times, and new cartridges are substantially more reliable than the original ones. Every cartridge is date-stamped when it is made, yet few users know how to tell the age of a tape.

If you pull the cartridge out of the box you should see four digits embossed in the plastic near the cushion that holds the tape against the drive head. The code is very simple, once you know it – the numbers tell you the day and year when the cartridge was manufactured by Ablex in Telford.

The first three digits are the number of days since the beginning of the year, and the last digit is the year from 1980. In other words, a tape manufactured on 1st February 1988 would be marked '0328', as January has 31 days. If you can't read the number, try turning it the other way up – Ablex is not consistent.

The main events in the history of the microdrive cartridge were design changes in mid-1984, 1985 and 1987. In 1984 Sinclair

changed the plastic moulding so that any excess plastic on the moulding ended up outside the cartridge, rather than inside, in the cramped company of 20 feet of narrow continuously-looped tape.

Plastic mouldings usually have a smooth side and a rough side – where the plastic was originally injected. Up until then, Sinclair had injection-moulded computers and calculators, which must look smooth on the outside but can have any amount of cack on the inside. But microdrive cartridges contain moving parts, so they need to be smooth on the inside!

Cartridges made from the middle of 1984 onwards sound and work better; you can tell later ones at a glance from the text RGD. DESIGN APP. embossed

near the number. Older tapes don't have this message – at least, they definitely don't have it on the outside!

A year later the moulding was changed again. The part of the cartridge that covers the tape at the top left side was affected, near to the roller wheel clearly visible inside the cartridge. The new moulding meets the tape at a diagonal, rather than at right-angles. This reduces the risk of creasing while inserting the cartridge, but may cause loops to form when the cartridge is taken out of the drive.

In 1987 ICL persuaded Ablex to beef up the spring behind the tape cushion. Later tapes have a much wider copper spring holding the tape against the drive head, which makes them more reliable. It was not uncommon

for the original spindly springs to fall out or snap off.

The length of tape inside each cartridge is said to have changed from time to time, although we have not been able to confirm this. In theory you can compare the length of tape in several cartridges by formatting them all in the same drive. The more sectors you get, the longer the tape – but this assumes that all tapes run at the same speed, and in practice that does not seem to be true.

Drive motor speeds vary widely, so it's pointless comparing capacities between different drives unless you've matched their speeds. The method is explained below – but don't try it if you're ham-fisted.

Souped-up microdrives

You can adjust the speed of a microdrive just like a cassette recorder. Dismantle the QL and tip the drive up after undoing the single screw under the drive and two screws on the top of the drive, at the bottom left and near the top right corner. Do not loosen the two screws nearest the rubber drive pulley.

Adjust the speed by pushing a sharp, flat-bladed screwdriver – no more than 2mm wide, at least 10mm long – through the rubber seal under the metal-cased drive motor. You should find a regulator screw; half a turn anti-clockwise is enough to change the speed from that which gives 200 sectors on a typical cartridge, to 230.

If the QL says 'format failed' on a previously-tested tape, the motor speed is probably too high, so that less than 200 sectors were found. It makes sense to set both your drives to the same speed – a formatted capacity of 216-220 sectors should ensure reasonable compatibility with old and commercial copies.

We haven't tried this on Spectrum or ICL One Per Desk drives, but the same tweak should work. The mechanisms are virtually identical, apart from the rubber roller that moves the tape, which will do its own thing regardless of the tape speed. We'd be interested to hear from readers who have adjusted their drives, but we advise you to leave well alone unless you're sure you can put things back the way you found them if you get into trouble.

This is not an exercise for the faint-hearted – remember that the higher the capacity, the slower the access time and the greater the density of recorded data. Microdrives are quite tolerant of speed changes when reading, but there's no point adjusting the speed of your drives if you then find it difficult to read tapes formatted at the old speed. Don't say you weren't warned!