Seven new games

By STEVEN DARNOLD

A good selection of software for the Commodore 64 is now available in New Zealand. Viscount's latest price list includes 66 programs on tape and 31 programs on disk. Similarly, Alpine Computing has recently obtained some of the best C-64 games from overseas. Add to this Commodore's own range of software and there is plenty to keep your C-64 busy.

My C-64 has been very busy the last few days trying out seven new games. I have blasted aliens, dodged bombs and gobbled fish until my joystick cracked with the strain. I suppose there is only so much excitement a poor Commodore joystick can take. At any rate, the games are of good quality: machine language is used throughout, and each game has some attractive features. They range in

price from \$30 to \$45. **Annihilator** — This ga

Annihilator.— This game is vaguely similar to the Defender arcade machine. Using the joystick, you manoeuvre your ship around the screen blasting the aliens. Unfortunately, the aliens do not shoot back, and they track you in a very simple-minded way. Players soon discover that by jiggling the joystick back and forth the aliens will bunch together. This makes them very easy to destroy. The only real challenge in the game is the meteors which appear at the higher levels. Over all, the game makes reasonably good use of graphics and sound

Ape Craze. — This is the joystick-killer. The object of the game is to jump up a series of platforms while bombs rain down from the top. When one ramp is directly over another, the only way to ascend is to jump up and jerk the joystick quickly to the left and then quickly to the right. The better you get at this technique, the more crackling sounds your joystick makes. The game itself is interesting, but poorly implemented. The graphics are relatively primitive, there are only two different game sets, and a player has only one life.

Centropods. — The object of this game is to shoot a variety of beasties that move across the screen. The most interesting is a snake which breaks into bits when you shoot it. You then have to shoot all the bits as well. The game is smoothly executed, and the graphics and sound are pleasant. However, I didn't

find the game very exciting.

Cyclons 64. - This is the best of the seven games. It is the first C-64 game I have played that has the "feel" of an arcade machine. As in Annihilator, you move around the screen shooting aliens, but these aliens shoot back and they are difficult to track. The graphics and sound excellent particularly explosions. It is obvious that a lot of thought went into the design of this game. There is a nice title section with theme music. There are options for terrain, ricochet, and skill level. There is a place to display the top players' initials. If you want a shoot-the-aliens game for Christmas, tell Santa Claus about this one. Oddly, it is the cheapest of the seven games.

Escape MCP. — I liked this game, but it will not appeal to everyone. In fact, two out of three American reviewers have harshly criticised it. The object of the game is to negotiate a set of passageways while being pursued by a monster. Each set leads to a new, more difficult set. The main problem with the game is that most people cannot get past

the first set. They try to beat the monster with speed, and that simply doesn't work. The only way to win is to lure the monster into a bad position. This requires planning and a certain amount of experience. It also helps to have a good joystick.

Motor Mania.— The object of this game is to drive your car along three different types of roads, avoiding logs, potholes, nails, oil slicks, boulders, other cars and emergency vehicles. Your instrument panel shows your speed, fuel and generator. There are petrol stations along the way for fuel and repairs. If you like this sort of game, then you will probably enjoy this version. The sound and graphics are good, and you can set the skill level. I enjoyed the game at first, but after I had been over all the roads a few times, it became repetitive.

Pakacuda.— This is an underwater version of Pacman where you gobble little fish and are chased by four octopuses. If you eat an electrical eel, it gives you a charge and you can eat the octopuses for a while. Unlike the ghosts in Pacman, the octopuses are stupid and continue to chase you when you are charged. It is easy to catch all four every time. On the other hand, some aspects of the game are more difficult than Pacman. The maze has some nasty corners where it is awkward to turn, and the pace is so fast that it is difficult to plan ahead. Over all, I prefer Pacman.

Pascal editor and compiler

On a more serious note, Commodore has just sent me a copy of an important new product. It is G-Pascal, a Pascal

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COMMODORE 64

editor/compiler with an extensive set of special commands for the Commodore 64's graphics, sound, clock, and joystick.

When I reviewed the Commodore 64 earlier this year, I said one of its advantages was the ability to turn off the resident BASIC and replace it with another language. This is exactly what G-Pascal does. Load the program from disk or tape and your 8K BASIC interpreter is replaced by a 16K Pascal compiler.

G-Pascal has several advantages over BASIC. It is faster, it makes the use of graphics and sound much easier, and it is highly structured. G-Pascal will be of particular interest to people writing games programs and to teachers and students of structured programming.

My first attempt to write a Pascal program resulted in a flurry of syntax errors. Pascal expects things to be done in a certain way, and experienced BASIC programmers in particular will find it a bit uncomfortable. For example, you cannot just drop an X into your program when you need it. First, at the top of the program, you have to declare X as a variable. Such idiosyncrasies gave rise to many errors in my programs and I had to do a lot of corrections.

Unfortunately, the G-Pascal editor is not quite as good as the usual Commodore editor. You have to get into a special edit mode before you can alter a line. This is a nuisance at first, but it is still relatively easy to edit programs.

a G-Pascal program Once completed, it needs to be compiled into P-code. For short programs this is practically instantaneous vou can press C (for compile) and R (for run) in one motion. For longer programs the compiler takes about one second for every 100 lines. Normally, G-Pascal has enough room to keep both the source program and its P-code in memory at the same time. Thus, if there is a run-time error, you can quickly call up the source program, correct the mistake and recompile. For extra long programs, G-Pascal can save the source program to tape or disk and use all of its memory for the P-code.

G-Pascal's commands make it relatively easy to create spectacular

graphics. Special commands are used to select various modes and colours, and particular attention is given to designing and moving sprites. For example, the MOVESPRITE command makes a sprite move at a specified speed for a specified distance. Once the command is given the sprite moves automatically from then on. The sprite can also be animated by instructing it to sequence through a series of sprite definitions. Up to 16 different definitions can be used and the sequencing is automatic.

G-Pascal's sprite capabilities are by far the best I have encountered. The other types of graphics, however, are not so well catered for. The bit-map has only a simple PLOT command, and no special support is given for programmable characters. Nevertheless, the use of logical commands instead of obscure PEEKs and POKEs facilitates the use of all types of graphics.

G-Pascal also takes the PEEKs and POKEs out of music making. There are sound commands for all SID registers and there is a delay function calibrated in 1/100ths of a second.

The special features go on and on. Clearly, G-Pascal is much more than just an ordinary Pascal compiler. However, in some respects it is also much less. G-Pascal does not implement all the specifications of standard Pascal.

G-Pascal faithfully uses the structure of standard Pascal, but it is limited in the types of data it can handle. Standard Pascal uses five data types: integer, character, Boolean, real, and user-defined. G-Pascal uses only the first two.

The Boolean type is no problem. G-Pascal includes all the Boolean operators, and a Boolean datum will work as normal if it is converted to a character datum.

The real data type is more of a problem. G-Pascal uses (3-byte) integer arithmetic only. This limits values to the whole number between -8388608 and +8388607. Numbers outside this range and fractions will require special procedures. Moreover, none of the standard functions for reals are available in G-Pascal. This includes such things as sine and square root.

The user-defined data type is also a problem. This is a popular feature of

standard Pascal, and many programs use it. Anyone trying to type in standard Pascal programs under G-Pascal will have some converting to do. The G-Pascal manual gives instructions for such conversions.

In total, G-Pascal is an attractive product. It combines most of the features of Pascal with a powerful graphics/sound package. If you want something faster than BASIC without the heartache of machine language, have a look at G-Pascal. If you want a language that fully supports the graphics and sound capabilities of your C-64, have a look at G-Pascal. If you want to write structured programs that are well organised and easy to read, have a look at G-Pascal.

Before you buy G-Pascal, however, keep in mind that other new languages for the Commodore 64 are coming. Logo and Simon's BASIC will be here soon, and a full UCSD Pascal is not far away. G-Pascal is good, but one of the other languages, may suit you better.

Spectrum sound

Fuller Micro Systems, of Liverpool, has announced sound and speech-enhancement boxes for a variety of small machines ... most significantly for New Zealand, the Spectrum. The sound offers a three-channel synthesiser. The speech box uses an allophone chip accessible from BASIC. The whole machine can be housed inside the FDS, a full-sized typewriter keyboard for the more serious user. Prices in the UK are 30, 40 and 40 pounds respectively.

H-P interactive

A new Hewlett Packard micro, the HP-150, offers an 8088 based system with micro-floppies and, as an innovation, a touch-sensitive screen interaction based on infra-red sensors. Combined with the correct driving software icon-based interaction is possible without any detached peripheral. Not, however, for the shaky handed.

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