Shields Up!

Damian Walker reviews Malcolm Tyrrell's space blaster Mr Meteoroid.

One of the aims of the programming tutorials in previous issues was to encourage more people to take advantage of EPOC32's built-in programming language OPL, in the hope that one or two might think about writing games themselves. At first, of course, these games would probably be simplistic in graphics, sound and game play, but could be entertaining nonetheless.

Back in 2000 Malcolm Tyrrell released such a game, Mr Meteoroid. The author describes it as "lo-fi", a deliberate attempt to keep things simple, and reminiscent of the type-in programs from the computer magazines of yesteryear. And as an extra nod to those type-in days, the source code of the game has been released, so we can all see how it's done.

The aim of the game is very simple: to stop meteoroids hitting your planetoid base. To do this you have four shields, each protecting one side of your base. Each is activated by holding down a key, helpfully shown on the relevant side of the base. Your base has an energy level which decreases each time a meteoroid slips past your defences, and when the energy is reduced to nothing, the game is over. A high score table shows how you did.

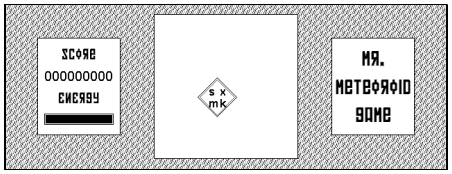
The first thing I noticed when trying to play this game is that the keys assigned to the sides of the base aren't logical. So I aborted my first game to redefine them, using the option that's helpfully provided. However, I found when playing again that the base periodically moves and rotates, so my carefully defined keys became inappropriate. Bear this in mind if you're going to repeat the same exercise.

The graphics, as you'd expect from such a game, are very simplistic. The base and its shields are drawn with simple line graphics, with the keys printed inside the base. As the base rotates you will find the displayed keys are a necessity rather than a luxury. After you've blocked a number of meteoroids with your shield, the base moves and rotates, and the speed of the meteoroids increases, a simple beep signals that this has happened. That appears to be the extent of sound support.

Game play is also accurately described by the "lo-fi" tag. The challenge in this game is really in remembering what key to press to activate what shield, in time to stop the meteoroids approaching from all directions. Even though the keys are displayed, it's easy to get confused by the rotations of the base. Apart from a gradual speed increase, there is nothing more to this game than already described. I would recommend a look at the help file, though, if only for the humour at the beginning.

Two things impress me about this game. One is that it supports all EPOC32 machines from the Osaris to the netBook. For the author of such a simplistic little game to have made the effort is praiseworthy. The other is the release of the OPL source code, which can be of great benefit in allowing people to see how the game works, and perhaps in encouraging others to build on what has been written.

I don't think many will be highly entertained by the gaming experience on offer here—not for more than a few minutes. But people playing with OPL might well find Mr. Meteoroid very interesting.



By	Malcolm Tyrrell
URL	psion.cyningstan.org.uk
Licence	Freeware
Compatibility	Osaris Revo S5/5mx Geofox S7/netBook
Rating	☆☆

EPOC ENTERTAINER
Issue 18: May 2009
Edited by Damian Walker
This month... Spectrum Emulation

As promised last month, we're having a rest from programming. If you don't like that, then email me and let me know! Otherwise I'll assume you're happy with the change.

Instead, this month sees the start of a new informative series about playing games under emulation on your Psion. This is a great way to increase the entertainment value of your little computer, as well as taking a trip down memory lane for some of the older readers. There won't be reviews of emulated games in *EPOC Entertainer*—that's for magazines dedicated to the emulated machines. But the articles here should be enough to get you started in emulation.

On top of that there are the usual reviews. Two this month: the interesting BlindSearch! game that's not quite battleships, and a Mr Meteoroids, which isn't quite Asteroids. I hope you enjoy them.

As always, any and all comments on the magazine are welcome at our usual address.

entertainer@cyningstan.org.uk

In Emulation

The first in an eight-part series, by Damian Walker, about playing games under emulation on your Psion.

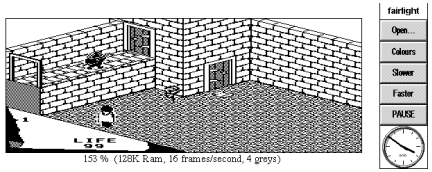
There are over 300 games for the EPOC32 platform. While this is enough to keep many people happy, users of other platforms will know this is a trifling number. The ZX Spectrum, popular across much of Europe, as twenty times as many games, while the more widely popular Commodore 64 had about forty times the number.

EPOC machines like the Psion Series 5 are powerful enough, however, to run the games written for these systems under *emulation*. Those used to gaming on platforms like the PC may be quite familiar with the concept of emulation. A piece of software called an *emulator* loads games written for another system, and translates them byte by byte, adapting such things as graphics and sound to use the Psion's hardware.

Some emulators are more successful than others. How successful an emulator will be often depends on the machine it is emulating. The more simple the emulated machine, the more smooth and reliable the emulator will be. So generally emulators for simple machines like the ZX Spectrum will be more reliable than those for machines like the Commodore 64 or the IBM PC.

There are a number of systems that can be emulated on an EPOC machine: the Sinclair ZX Spectrum, the Commodore 64, the Apple II, the IBM PC, the Nintendo Gameboy, various arcade machines, and even programmable calculators like the Hewlett-Packard HP48 and the Texas Instruments TI-85. Surprisingly, there are no emulators for Psion's own Series 3 or Organiser II, which is disappointing.

This series of eight articles looks at the various emulators available for EPOC, tests them out on various EPOC machines, and gives examples of popular games you might want to run on them. With this first article in the series, we



will start with the Sinclair ZX Spectrum.

The ZX Spectrum was introduced in 1982 by British company Sinclair Research. It was supplied initially with 16K or 48K of memory, and a 128K model was introduced later. The screen had a resolution of 256×192, and could display 15 colours, though there were limitations on the number of colours that could be used within confined spaces. This results in a monochromatic feel to many of the Spectrum's games—perfect for emulation on monochrome EPOC machines. Sound was provided on the 16K and 48K models by simple beeper, much like that found in the Osaris, but the 128K models had a more powerful sound chip.

The Spectrum emulator available for EPOC is Z80 from Palmtop (later TomTom). The program is supplied as a single SIS file that contains everything needed to emulate the machine, and is completely free of charge. Z80 runs on everything from the Revo and Osaris to the Series 7 and netBook, and it emulates the 48K and 128K models.

Amstrad hold the copyright to the Spectrum ROM, as they bought the rights from an ailing Sinclair in 1985. They have allowed free use of the ROM in emulators, so there are no issues with distributing it. So Z80, like many Spectrum emulators, includes the ROM as standard. The authors of many games have also released their old software into the public domain, so many of the Spectrum's thousands of games are freely available to play.

Among the thousands of games available for the Spectrum are some real classics. The platformer *Manic Miner* is probably the most famous game released for the Spectrum, though it was also released on other platforms. Its sequel *Jet Set Willy* is also well worth a look. The Spectrum pioneered early 3D games, using isometric graphics to give a 3rd-person view. *3D Ant Attack* is probably the first game of this type, but later examples were more graphically impressive, such as *Fairlight* and *Head Over Heels*.

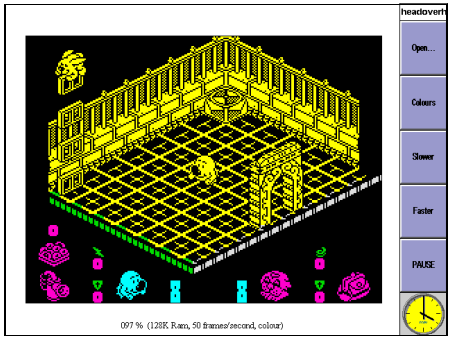
There are also a good many strategy games for the Spectrum. The more detailed of these tend to have old-fashioned, difficult user interfaces, but exceptions include a number of games by Julian Gollop: *Rebelstar*, *Laser Squad* and *Lords of Chaos* being good examples. I have a particular fondness for *Legions of Death* too, which despite its name is about naval warfare in the Punic Wars.

The popularity of the Spectrum endures, and people are still writing new games for the machine. Bob Smith and Jonathan Cauldwell have written some very good games in recent years, some of which are available free, and Computer EmuZone in Spain have also released some excellent games.

Z80 runs these games smoothly and reliably on all EPOC machines, probably due to the Spectrum's simple architecture. It supports three of the main distribution formats for games: *TAP* format tape files, and *Z80* and *SNA* snapshot files. All machines can keep up with the Spectrum and run games at full speed or better; the speed is adjustable so games can be run at genuine Spectrum speed.

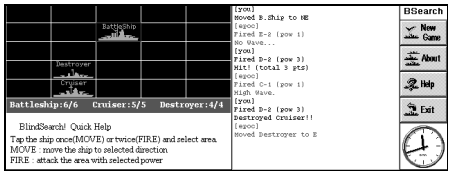
For more information about the Spectrum, and game downloads, the excellent web site World of Spectrum (*www.worldofspectrum.com*) is the best on-line resource. Another site is Cronosoft (*www.cronosoft.co.uk*), which offers new games for sale, and in some cases for free download.

Next month we'll be looking at another popular 8-bit computer of the same era, the Commodore 64.



All at Sea

A review by Damian Walker of Tea Duck Studio's sea battle game BlindSearch.



BlindSearch is a clever little game about ships hunting each other in the open sea. This description could suggest the game "Battleships" to you, but nothing could be further from the truth. While there are a couple of Battleships games on EPOC32, BlindSearch isn't one of them.

The action takes place on a simple 5×5 grid of sea. Each player starts the game with a battleship, a cruiser and a destroyer. Each ship occupies a just single square on the grid, and they differ in offensive power and in the amount of damage they can take. As in Battleships, you don't see where the enemy ships are.

In each turn, you can do one of two things. You can move a ship to an adjacent square, in which case the enemy is told which ship you've moved and in what direction, but not where it is.. Or you can have one of your ships fire into an adjacent square, in which case you're told whether you've hit a ship, or if not, whether a ship is close by; your enemy is then told which square you aimed at, but not where you're firing from. In this way each side has clues to piece together in his search for enemy ships.

BlindSearch has been released for the Series 5mx and the Revo. It also works on the Series 5 "Classic", which would suggest that the Geofox will run it in letterbox mode, as will the Series 7 and netBook. Only the Osaris is, unfortunately, left out.

I had high hopes for this game. Not just because, in my search for games of naval warfare, it's a pleasant surprise to come across a game that isn't simply another version of battleships. But also because I have a particular liking for simple games that offer a great deal of depth; BlindSearch fits the former criteria with its tightly-bound 5×5 map and its three ships.

I'm still discovering its depth of game-play. My initial impression was that a great deal is down to luck, as the enemy ships, like yours, move around a lot and it's almost impossible to track a moving target that you can't see. But as I played a bit more, it became apparent that the clues the game gives have to be taken very thoughtfully: "Battleship moves south," tells it's not in the top row; "Fire upon A3" that there is an enemy ship in one of the adjacent squares. It becomes like a logic problem. But there's also drama: "Hit!" my battleship takes damage, so I move it; "Hit!" but obviously not far enough, so my beleaguered battleship continues to steam hurriedly across the sea to escape the pursuit of the enemy, putting my strategy in disarray.

BlindSearch is reasonably well presented. The graphics aren't outstanding: the sea squares are filled in black, with the ships as white silhouettes on them. Below this is a status display with your ships' strengths, and below that a quick help window. To the right is a scrolling text window, containing reminders of previous messages given out by the game. Messages resulting from your actions are in black, the enemy's actions in grey.

Sound is offered on the preferences dialogue box, but even when turned on the game is silent. Apart from this minor inconvenience, the game looks and works well, and I would be happy to recommend it to owners of the Revo and Series 5 compatibles.

By	HIdeya Muraoka
URL	http://psion.cyningstan.org.uk/
Licence	Freeware
Compatibility	Revo S5 S5mx MC218 Geofox S7 netBook
Rating	☆☆☆