The Small Screen

Damian Walker continues this series on accommodating varied screen sizes.

In the first couple of articles I introduced a new project, *Rockfield*. It generates a field full of rocks as a basis for some kind of game. But as we left it last month, the program has a small problem: the size of the field, and thus the game play, is different from one machine to another. Some game authors have been happy to leave things this way, but we may wish to be more sophisticated.

But, this month, not *much* more sophisticated. The easiest solution to the problem is to adopt a sufficiently small grid size, and draw it centred on the screen, knowing that it will work on all machines. To do this with our demonstration program, add a new procedure *SetUpScreen*, as below, between the *GenerateField* and DrawField procedures given last month:

```
PROC SetUpScreen:
  gPATT -1,gWIDTH,gHEIGHT,3
  gCREATE((gWIDTH-320)/2,
  ↵(gHEIGHT-160)/2,320,160,1)
ENDP
```

You will also need to modify the *Rockfield* procedure to call this before it runs DrawField, as follows:

```
  …
  GenerateField:
```

```
  SetUpScreen:
  DrawField:
  …
```

The *SetUpScreen* procedure fills the whole screen with a pattern, and then creates a window, centred, of size 320×160, making that the current drawable. I've chosen this size as it is the largest that will fit on *any* EPOC32 screen, though it will not fill the screen on even the smallest machine. In a real game, the unused space could be used for scoring and other status information, but we won't worry about that here.

Notice that I've not stored the ID of the new window anywhere. The DrawField procedure will pick up this value using the gIDENTITY function, but in general it's bad practice to create a new drawable without keeping proper track of its ID. I do it here purely to save space.

You might find this solution satisfactory. It's certainly clear on just about any screen, and a game based upon it will play exactly the same on whatever machine you care to run it on. But it looks a little lost on the large screens of the Series 7 and netBook. If you want your game to really look good on all machines, you're going to have to put a little bit more work in, and next month's article will look at another way of getting a game to run on any EPOC32 machine.
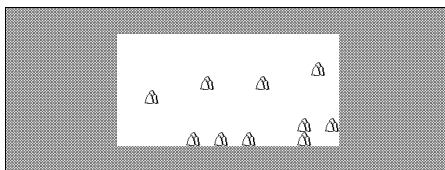
Welcome to the fifteenth issue of *EPOC Entertainer*. This month I have a couple more reviews for you, as well as the continued programming tutorial. And below is another *In the Spotlight* article. As always, I'm interested in hearing feedback about the issue, whether you've enjoyed it and what else you'd like to see here. Comments to:

entertainer@cyningstan.org.uk

In the Spotlight

This month, Damian Walker looks at the many games of prolific EPOC shareware author Ben Vaughan.

After fourteen issues it's high time I highlighted the games of Ben Vaughan, one of the most prolific authors of EPOC software. Ben has written a number of shareware games across a number of genres, and still offers them for sale on his web site. Two have been reviewed in these pages before: *Connect 4* and *Astrocks*.

Other games of the traditional type in Ben's collection include *Psi-Jong* and *Shanghai*, which are mahjongg puzzles, *Casino Blackjack* which should need no explanation, and *Reversi*, Ben's version of the well known board game.

Action games besides *Astrocks* include *Dino Zone*, *LEM* a lander game, the Tron clone *Light Cycles* and *Robo Dungeon*, a take on the old computer game Daleks. The collection includes a couple of simulations, *Fruit Crazy* a fruit machine simulation, and *Golf-Pro* which is a particularly good-looking golf simulation. This leaves only *Tile Trix*, a puzzler, and *War*, a strategy game with elements of Worms but with much more going on.

I would well recommend a visit to Ben's site, which also includes a section for EPOC16 users too.

| Author	Ben Vaughan
URL	www.bjv.btinternet.co.uk

A Tank Full
A review of Jonas Bark's strategy game TankWar, by Damian Walker

Strategy games aren't the strongest genre on EPOC32. So I was pleased to discover the existence of TankWar, by Jonas Bark and Henner Keßler. Tank War is a simple turn-based game in which each player controls a group of three tanks, which track the enemy down on a battlefield strewn with obstacles. The first player to destroy the enemy will win the game.

The graphics are simple, and would be clear if they weren't a little bit too small to make out properly. The battlefield is based on a grid of squares, and I think the game would have been improved if a smaller number of larger squares had been used. Sound is limited to warning beeps, and the user interface is very simple; no EPOC menus or dialog boxes are used, but everything is controlled with a series of key presses and a trio of buttons. A concise help screen lists the keys.

Game play is very simplistic, and the game suffers from the lack of a computer opponent. The large battlefield grid mentioned above is again a drawback here, as players have a long way to go before they encounter each other. This wouldn't be a problem with a larger number of tanks, which would perhaps increase the opportunities for strategic deployment. Options to set the number of tanks would be a good way to rectify this; indeed, at the moment there are no user-definable options in the game, and here is the biggest room for improvement.

The game is designed for the Series 5 screen, and will run in letter box mode on larger machines. The Revo and the Osaris lack the screen resolution to run the game. However, TankWar takes up very little memory and runs at a good speed.
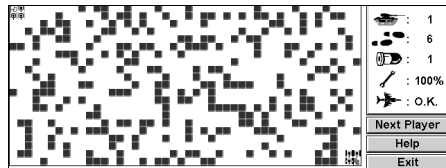
Unfortunately, I found reliability problems with the game. The initial installation of the SIS file dumped the application in the wrong directory, and I had to move all the files from \System\Apps into \System\Apps\TankWar. Then there were further problems on running the game. Once a tank rose phoenix-like from the ashes of its own destruction, which I'm sure wasn't intentional. When I'd destroyed all three enemy tanks, the game crashed, perhaps due to the resurrected tank which was still able to wander around the screen.

A positive point about TankWar is that it comes with source code, which will allow anyone to make good its shortcomings, given the time or inclination. The source isn't in straight OPL, though, instead I believe it uses Neuon's nOPL, so anyone wishing to play with the code will either have to install nOPL, or try and convert the code back to straight OPL.

I wouldn't recommend TankWar as a playable game in its present state. Its reliability problems prevent it being played at all. The lack of a computer player hinders its success. And to satisfy two players, some more variation is needed in the game play. But as the source code is supplied, it looks quite promising. To anyone interested instead in tinkering with an already-functional program, I *can* recommend TankWar.

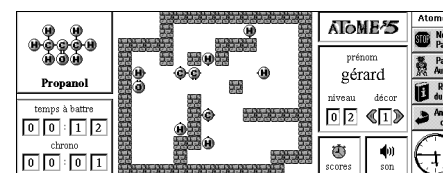| By	Jonas Bark
URL	www.jackpot-music.de/boni
Licence	Freeware
Compatibility	S5 S5mx MC218
Rating	☆☆

Atomic Theory
Damian Walker reviews Gérard Millet's Atome5 molecular puzzler.

Among his other interesting and well-presented games, Gérard Millet has produced Atome5, an interesting little puzzle for the Psion Series 5 and 5mx. Initial appearances will give the impression that this is some variant of the more well-known Sokoban. While the games have a similar feel, though, their rules are quite different.

Atome5 is played in a series of 30 walled levels, very similar to Sokoban. But instead of having a workman pushing boxes around a warehouse, you're instead pushing atoms around to form a molecule. When you push an atom in Atome5, it will continue moving in the direction you've pushed it until it hits an obstruction— another atom or a wall. This makes it tricky to line up atoms in their correct places, and sometimes atoms need to be shifted into a temporary position to form an obstruction for other atoms, before being put in their proper place.

One notable difference from Sokoban is that in Atome5, you're not told exactly where the atoms are to end up on each level. You're shown the configuration of atoms in the molecule, and you have to work out the most appropriate position for the molecule to be built. I haven't worked out yet whether any level offers more than one position where the molecule could be completed.

Installation of the game is rather old-fashioned, as it isn't supplied as a SIS file. Instead, you have to create a folder Atome5 within \System\Apps, and extract the files from the ZIP archive into that folder. This will suit some Series 5 "classic" owners who don't have PsiWin or Message Suite installed, but for most of us it's a bit of a nuisance.

Graphics in this game are very good. They're clear and well-presented, with a 3D shading effect on the atoms. And you can change the "décor", specifically, the graphic used to represent the walls. Sound support is minimal; a quiet "boing" sound is played each time you move an atom. The user interface in general is adequate; it's all in French but that presented me with no problem even though I don't speak the language.

The game is very addictive, as with other puzzles of this type. I played through a fair few levels before I tore myself away from it to start this review. There's a nice learning curve, with the initial levels being very easy, giving you time to get used to the interface and the game mechanics. The 30 supplied levels should keep you going for a while.

The game doesn't really integrate well with EPOC, however. It doesn't use standard EPOC menus or keys, seemingly, though it does use a toolbar. Neither does it respond to Close events from the system screen. This caused me some difficulty when I wanted to quit the game, as there's no apparent Close option (you have to specify "Nouv. Partie", new game, and tap the *Quitter* button in the dialogue box that appears). On the positive side, the game is small, fast, and everything appears to work as it should.

I especially recommend this game to fans of Sokoban. While the rules are different, the feel of the game is very similar, and the challenges it presents will seem quite familiar. I'm not an avid Sokoban player, but Atome5 has entertained me enough that I'll be keeping it on my 5mx for some time to come.

By	Gérard Millet
URL	pagesperso-orange.fr/psions5-3495
Licence	Freeware
Compatibility	S5 S5mx MC218
Rating	☆☆☆☆