

## The Small Screen

This month Damian Walker investigates the use of a scrolling playing field.

Last month, we implemented a simplistic way of making a game that will play equally well on all machines from the Osaris to the netBook. But it only does this by keeping the size of the display down, which looks good on the Revo and Osaris but is rather lacking on the netBook.

This month we'll look at the opposite end of the scale: have a field as big as possible, instead of as small. This method has been used in such games as *No Man's Land* and *Sim City Classic*, reviewed in previous issues of *EPOC Entertainer*. We can use a large off-screen bitmap (whose ID will be stored in *mapid%*) to draw the field, but show only a section of this on the screen at a time. The player will then scroll around the playing field, using whatever means the game allows, in order to look at the whole area.

For our demonstration, you need to return the *Rockfield* program to the state as given in the second article of the series, removing the *SetUpScreen* procedure and the call to it before adding the following procedure to the end of the program:

```
PROC Showfield:(mapid%)
  LOCAL gridX%,gridY%,keypress%
  DO
    gCOPY mapid%,
      ↗rockSize%*gridX%,
      ↗rockSize%*gridY%,
      ↗gWIDTH,gHEIGHT,3
    keypress%=GET
    IF keypress%=256
      gridY%=gridY%-1
    ELSEIF keypress%=257
      gridY%=gridY%+1
```

```
ELSEIF keypress%=258
  gridX%=gridX%+1
ELSEIF keypress%=259
  gridX%=gridX%-1
ENDIF
UNTIL keypress%=27
GIPRINT "ESC again to quit"
ENDP
```

To make use of this procedure the *Rockfield* procedure needs to be edited as follows:

```
PROC Rockfield:
  GLOBAL rocks%(KFieldSize%),
    ↗rockSize%,gridWidth%,
    ↗gridHeight%

  LOCAL mapid%
  SETPATH CMD$(1)
  GenerateField:
  mapid%=gCREATEBIT(640,480,2)
  DrawField:
  gUSE 1
  ShowField:(mapid%)
  DO UNTIL GET=27
ENDP
```

The mechanism by which we scan the keyboard and act upon its input will be familiar from the *Taking Control* tutorial series. I deliberately leave out a check that ought to be there, the test to make sure we don't scroll off the edge of the field. This is for two reasons: one, for simplicity, and two, in order that netBook users can test the result. If written properly, as the netBook screen would accommodate the entire field scrolling would be unnecessary.

The current program draws only in 4-greyscale monochrome, even if your rock bitmap is in colour. It might be better to look at the rock bitmap and adopt whatever screen mode that is drawn in, but I'll leave that as an exercise to the reader.

Next month we'll return to the small playing field, and a completely different solution to the problem.



Welcome to another issue of *EPOC Entertainer*. This issue has a bit of a puzzle game bias, but I think it's none the worse for it as these are two excellent games reviewed this month. The programming tutorial

continues with a look at fitting a large, scrolling playing field onto the varying screens of EPOC32 machines. I hope you enjoy the issue!

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## Out of Alignment

Damian Walker reviews PocketIQ's interesting and addictive puzzle game, Alignment.

While some game genres are not well represented on EPOC32, there is a good variety of puzzle games, and EPOC32 handheld machines score quite well in this category. One of the better quality games is Alignment, a shareware game from PocketIQ.

In Alignment, a square board of 9x9 cells starts empty. During the course of the game it is filled with pieces of various shapes (on monochrome machines) or colours (on the Series 7 and netBook). Pieces on the board can be moved around, one at a time, from any square to any other as long as a clear path exists between the piece and the place you want to move it to. Diagonals do not count; while a piece can change direction as it moves it cannot move diagonally. If five identical pieces are put into a row, the row disappears, leaving a little more room to manoeuvre. Forming such rows adds to your



score.

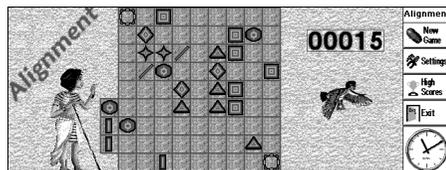
There are some extra twists to the game play, too. Some special pieces exist: a "wild card" piece that matches any colour or shape and can be used to form a row, a "transformer" piece can be used to change any other piece into a wild card piece; and a "bomb" can blow up a troublesome piece that is in your way. Use of too many of these special pieces, with the exception of the wild

card piece, can incur a penalty though, making the board fill up faster and be more congested. The object of the game is to prevent the board from filling up completely with pieces. It is open-ended, that is, there is no “win” and play will continue until you lose.

This game is very addictive. It's one of those games that I find it difficult to stop playing, even in order to write this review. I'm surprised that it wasn't on my machine already, though maybe that's a testament to the number of good games available for EPOC32. Alignment is also a game that you can play over and over again; since placement of the pieces is random, no two games are alike. The difficulty of the “Beginner” level gives a very gentle game, perhaps too easy, but it does allow you to get a feel for the rules.

The presentation of this game is excellent. The graphics rival similar games on modern desktop environments, being clear, interesting and well-drawn. On the colour machines, the pieces are colourful and attractive, looking somewhat like jelly beans. On the monochrome machines, the pieces are different shapes, just as well-drawn and very clear and easily distinguished. On all machines, the Egyptian themed background graphics have interesting textures and are a refreshing change from the plain backgrounds of so many EPOC32 games. Clarity is not sacrificed by this as the game's title and score are in large, clear writing.

Sound support is only token, there being a strange “pop” noise every time you form a row of five identical pieces. This is probably a good thing; on this type of a game more frequent noises might become irritating, though I think we players could have



endured a discreet click or sliding noise each time a piece is moved. Other elements of the interface are simple and well-laid out; it conforms to the expectations of EPOC32 users with standard menus and a toolbar with buttons. There are not too many options, and everything that is present is easy to access.

Alignment runs on almost the full range of EPOC32 machines. Only the Osaris is left out, because of its small screen. Things are a little slow on the Series 5 “classic” and the Geofox, but not slow enough to ruin one's enjoyment of the game.

Unfortunately PocketIQ seem not to exist any more, and the program can't be registered. However, the restrictions on the unregistered game are not particularly onerous. A nag screen appears once on loading the game, and once on exit; high scores can't be shown on the table, so you'll have to remember how well you did; and you can't enter the high score competition, but since the sponsors don't exist any more and the competition ended in 2002, I doubt you'd be worried about this. So with Alignment effectively freeware now, there's no reason not to download it and give it a try!

|               |                          |
|---------------|--------------------------|
| By            | PocketIQ                 |
| URL           | psion.cynningstan.org.uk |
| Licence       | Shareware                |
| Compatibility | Revo S5 S5mx S7 netBook  |
| Rating        | ☆☆☆☆                     |

## Tactile Feedback

A review by Damian Walker of Psion's puzzle game Tactile, from the Games Arcade.

One of the games included in Psion's Games Arcade package is the intriguing TacTile puzzle game.

At the start of each level, you are given a task to do; in the first level it's “flatten out the tiles.” You then have to call up the more detailed information, to see what the various objects do and how they are controlled. In the first level there are only standard tiles; tapping them makes them fall, tapping them with Ctrl held makes them rise. But an adjacent tile is always affected too, and an arrow on the screen indicates which adjacent tile this will be. So rising one tile on level 1 will always make an adjacent tile fall, and vice versa—unless there is no adjacent tile, a consideration that is often crucial to solving a level. You have a limited number of moves in which to complete the task, after which time you move on to a new level, with new challenges, new objects and new rules. Later levels introduce such things as sloping tiles, pyramids, slot tiles, brick walls, balls and baskets; objects can rotate and move as well as rising and falling; and of course objectives vary, so you will be called upon to do such things as “put the balls in the baskets” or “turn all slot tiles the same way.”

The very strangeness of this game, with objectives and rules changing from one level to the next, gives it a strange appeal. This and the fiendish difficulty of some of the levels makes the game extremely addictive.

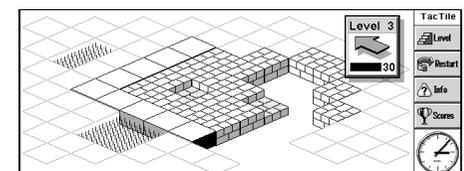
The number of levels, 32, sounds quite small compared to some other similar puzzles. But some of these levels are, as I say, very difficult. I myself am stuck on the seventh level (so any hints will be gratefully received). If ever you do complete the game, you could always try your hand at designing new levels, as there is a level editor built in to the

game. Though I don't know of any third-party level sets in existence, in theory this game can be expanded infinitely through the addition of level packs, giving unlimited replay value.

The presentation makes TacTile extremely appealing. Levels are shown in an isometric 3D format, much like some of the graphical adventure games popular on 8-bit home computers of yesteryear. a 3D projection is of course necessary to see the effect of raising and lowering tiles, though it sometimes makes it difficult to distinguish exactly where to tap on the screen to manipulate your chosen object. Thankfully, keyboard control is also provided. Sound is supported, with noises played as you manipulate the different tiles. As you would expect from a Psion game, all the standard key, menus and toolbar buttons are used, and so everything is where you expect it to be.

Unfortunately the game supports only the Psion Series 5 directly, having been written in 1997. As speed is not an issue, it will work perfectly on the 5mx and Ericsson MC218 too, and in half-screen mode on the Series 7 and netBook. But the screens of the Osaris and Revo are not catered for.

TacTile isn't too difficult to find. Psion's Games Arcade often appears on eBay, and is never very expensive. I can therefore recommend it both for its inclusion of TacTile, and for the fact that four other good games are included.



|               |                          |
|---------------|--------------------------|
| By            | Psion                    |
| URL           | psion.cynningstan.org.uk |
| Licence       | Commercial               |
| Compatibility | S5 S5mx                  |
| Rating        | ☆☆☆☆                     |