In Emulation

This month Damian Walker looks at emulating the Apple II series of micros.

One of the earliest home computers to hit the market was the Apple II series, which was most popular in the U.S.A. There it was the choice of computer for schools, just as the BBC Micro was the educational computer of choice in Britain. The computer was launched in 1977, and underwent a number of changes until production ceased in 1993.

The Apple II was supplied with a 6502 processor, and anything from 4K of memory upwards. The original machine had a maximum of 48K, and most users seem to have had this installed. The machine offered 40-column text, a 16-colour block graphics screen or a 6-colour high-resolution screen of 280×192 pixels. Good graphic artists could get more colours by taking advantage of the colour bleeding characteristic of American NTSC television sets. Sound was limited to a beeper, though some programmers sought to get some decent effects from it. The disk drive was ubiquitous among Apple users.

The PsiApple emulator provides Apple II compatibility on the Psion Series 5 and 5mx computers. It also runs on the Series 7 and netBook (and presumably the Geofox One), in letterbox mode and in black and white. The emulator is easily installed, as it contains its own ROM images, though it only runs on the C: drive. On booting up initially, the emulator complains that there is no disk inserted, but pressing the reset button on the button bar calls up Apple BASIC. From here one may use other buttons on the button bar to insert disk images into the virtual drives.

Disk images for many games are freely available from a variety of sites. The Apple II was the initial platform for some games that many players will remember for this and other platforms. Such titles as *Bard Tale*, *Choplift* and the *Might & Magic* series started life on the Apple. The graphics are crude, though they don't look so bad in monochrome as you forego the orange, green, blue and magenta palette that Apple games were limited to.

The emulator seems to be very successful at running most games I tried, albeit at a slow speed. Only one game failed, *Aztec*, and this may have been due to a bad disk image, as it failed with a *File not found* error message from the virtual Apple. The success rate is probably down to the Apple's simple architecture, though the speed is disappointing, as even on my Series 7, some arcade games were too slow to be playable. Only uncompressed disk formats are supported, and as mentioned before, everything is in black and white.

The Apple II community isn't as vibrant as that for some other 8-bit machines, but a number of sites do cater for the machine. The largest archive of disk images I found was at *ftp.apple.asimov.net*, though this uses a simple FTP interface, so unless you're willing to try lots of games out at random, you need to know what you're looking for. The Apple has no big review site analogous to *World of Spectrum* or *Lemon64*, but the site *classicgaming.gamespy.com* does contain a modest collection of disk images with some detailed game reviews to get you started.

For some Psion owners, particularly west of the Atlantic, the PsiApple software will provide a pleasant few hours of nostalgia, perhaps more, and for those who are interested in the old Apple II it is heartily recommended.

Psiapple emulating Choplifter.

Welcome to the slightly late July version of *EPOC Entertainer*. This issue has been delayed slightly due to work pressures, but now things are back on track and hopefully August's issue should be on time.

What's in store for you this month? Well, it's about time that we looked into the games of Ten Dan software. And the series on emulation continues, with a look at how to get Apple II games running on your EPOC computer. And there are two more reviews for you: Super Pong and Columns.

I hope you enjoy the issue. As usual, comments, queries and suggestions are welcome at the usual address.

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In the Spotlight

This month Damian Walker looks at the games of Ten Dan Software

Though not as prolific as some authors covered in previous "Spotlight" articles in *EPOC Entertainer*, Ten Dan software is distinguished in the fact that all of its programs run on all EPOC32 machines. All of these games are cleverly written to scale their display to whatever machine the game is running on. This is particularly important to users of machines with smaller screens, like the Revo and Osaris, who have often been overlooked by software writers.

The output of Ten Dan is relatively small, with only four games. These are all computer implementations of traditional games. tdDomlink is a domino puzzle game in which you have to place dominos in a grid, linking them up to score points.

The other three games are board games. tdFive is the traditional five in a row game. tdOxo3d is 3-dimensional noughts and crosses. And tdReversi is the usual Reversi game, which has been implemented several times on the EPOC platform.

Most of Ten Dan's games have prettier and more sophisticated versions available. But the charm of Ten Dan's games are their simplicity and their compatibility across all the EPOC range. Osaris and Revo users especially might want to give them a try.

You can find Ten Dan's games in the EPOC games database:

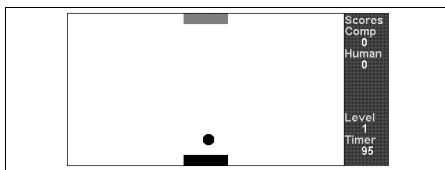*http://psion.cyningstan.org.uk*
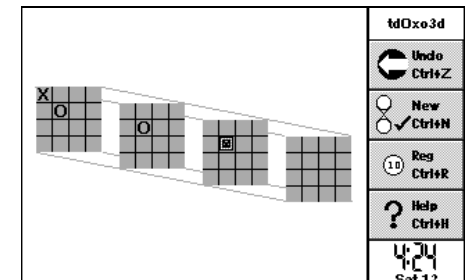
A Load of Balls

Damian Walker reviews Matthew Hopwood's Super Pong retro game.

I've never been that attracted to Pong type ball games on computers. The golden era of TV game machines was before my time, so I never got to experience the novelty of them. And even by retrogaming standards, the visuals of Pong games are poor. but I thought that it's about time I gave one of these games a try.

Pong was one of the first video games people could play in their own homes. In the 1970s, shortly before cartridge-based game consoles like the Atari VCS appeared, their predecessors were machines similar in look but which played only one built-in game. Pong was the usual choice, as it was a simple game to program and allowed multiplayer possibilities. The games of the time weren't quite as simplistic as you might imagine, and even in those games the players could choose from a number of bat-and-ball type games to play, like tennis or squash.

Fast forward over thirty years to today, and people are still re-implementing this old classic, often with similar graphics to the original. One example is Super Pong, for our own EPOC machines. It was written by Matthew Hopwood, released in 2000 as freeware, and is compatible with all EPOC32 machines. Due to the nature of most EPOC machines, the game is for one player against the computer.

Matthew took inspiration from the original simplistic Pong graphics in this version of the game. Admittedly, the balls are round and not square, but there's even an option to have square balls for that truly retro feel. Bats are simple unadorned rectangles of black. Only a grey scoreboard with EPOC fonts depart from the feel of the original, which had plain digits in a square font. Sound is also very simple, with a nice *blip* sound every time you hit the ball.

Super Pong has an abundant selection of options. Like some early Pong games it gives a choice of game types: in this case timed games, death matches (where the first player to reach a given score wins), games with gravity or turbulence (or both), squash, and even simplistic breakout type games with bricks. Customisation allows you to combine elements of different games, like breakout games with turbulence for example. It also allows you to configure the number of balls simultaneously in play.

One of the options allows the keys to be redefined. Unfortunately only printable characters can be used as keys, so you can't use the arrow keys for movement. The game does allow the stylus to be used to play, which is easier than the keys as you can move the bat much more quickly. I tried this on a MC218 and noticed that the bat hovers an inch or so to the right of the stylus. I wondered if this was a feature, to prevent the game being too easy or to stop the stylus itself getting in the way of the action. But on an Osaris the bat sits directly under the stylus, so it must instead be a bug.

Despite this minor problem the game is still very playable. The presence of up to eight balls in a game makes the action quite hectic, and I found I can only manage to keep two or three balls in the game at once. Luckily the computer was dropping balls too, so my score didn't suffer that much!

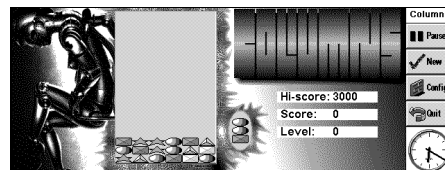| By	Matthew Hopwood
URL	www.olsb.co.uk/epoc
Licence	Freeware
Systems	All EPOC Computers
Rating	★★★★

Amid the Fallen Columns

A review of J. S. Greenwood's Columns game, by Damian Walker.

Since the advent of Tetris, not only have a number of clones appeared, but the genre has been enlarged by a number of puzzles of a similar appearance and different game play. One such game is Columns, in which falling columns of three distinct pieces must be positioned and configured to form rows of three identical pieces, which will then disappear from the game and score points for the player. Columns can be re-orientated by swapping the order of the blocks within them, rather than being rotated as in Tetris.

This game was ported in 1998 to the Series 5 Classic by J. S. Greenwood. At such an early date, conscious support of machines with faster processors or different graphic resolutions was impossible, those machines not yet existing (with the exception of the Geofox One). This game therefore does not support the Revo or Osaris, and runs too quickly on any machine faster than Psion's original 18 MHz Series 5 Classic. So it's restricted to owners of the Series 5 Classic and the Geofox One.

First impressions count, and on that front Columns scores highly. The elaborate background display means that this game rivals in graphical splendour similar games on desktop computers, albeit computers with a monochrome display. The graphics as if they're in 16 grey scales, but closer examination shows this to be achieved with 4 grey scales and clever dithering. Upon starting the game, the falling blocks are drawn attractively, too, if looking a little squashed. The squashed shape of the blocks is a way of fitting this vertically-orientated game on the Psion's horizontally-orientated screen, and it's easy to get used to though it looks odd at first.

The game can be quite addictive when beginning, but there are a number of things that, for me, mar the game-play enough to discourage me from playing. The first is a subjective complaint. The difficulty level, as in the speed of the blocks, increases far too rapidly for my liking. There's a gentle introduction when the blocks fall quite slowly for a time, but once the first "jingle" is heard, to signify an increase of speed, successive difficulty levels seem to come thick and fast. One thing does help here, and the effect must be quite unintentional. The unregistered game pauses every so often with a message inviting the player to register. This clearly supposed to be an annoyance, but it does give the player an extra chance to work out the best place and orientation to put the current column—this becomes more helpful as the speed increases and would almost discourage me from registering!

Another complaint, apparently a bug, has a greater effect on playability. For some reason, a key press is frequently ignored. Sometimes you press the left or right arrow key and the column fails to move. You have to press the key again, if you have time before the column lands. In a fast-paced level this can be fatal, and in a game that relies on fast reactions it is a fatal flaw. It's this that makes the game unplayable, in my opinion, as with reliable keyboard control I could probably cope better with the rapid increases in speed.

I'd therefore recommend that you install Columns just to admire the pretty graphics. But if, like me, you tire of the game quickly due to the difficulty and the unresponsive keyboard control, you'll want to uninstall it soon enough.

By	J. S. Greenwood
URL	psion.cyningstan.org.uk
Licence	Shareware
Systems	Series 5
Rating	★★