

Mightier than the Sword

In the final instalment of this programming tutorial, we finally get to wield the pen.

In the *Mole Hunt* game we've been building up so far you can sit and watch moles pop up on your lawn, but you can't yet do anything about it. This issue of the tutorial gives you what you've been waiting for: pen input.

In order to implement pen input you need to replace last month's *AwaitHit%* procedure with the following:

```
PROC AwaitHit%:(molex%,moley%,time%)
LOCAL
  ↗start&,current&,n&,secs&,usecs&
LOCAL status%,ev%(16)
LOCAL hit%
start&=DTNOW&:
GETEVENTA32 status%,ev%()
DO
  IOYIELD
  WHILE status%<>-46
    IF ev%(1)<>&408
      ELSEIF ev%(4)<>0
      ELSEIF ev%(8)<molex% OR
        ↗ev%(8)>15+molex%
      ELSEIF ev%(9)<moley% OR
        ↗ev%(9)>15*moley%
    ELSE
      hit%=-1
    ENDIF
    GETEVENTA32 status%,ev%()
    IOYIELD
  ENDWH
  current&=DTNOW&:
  DTDATETIMEDIFF:(start&,
    ↗current&,n&,n&,n&,n&,n&,n&,
    ↗secs&,usecs&)
  UNTIL usecs&+1000000*secs&>=time&
    ↗OR hit%
  GETEVENTC(status%)
  RETURN hit%
ENDP
```

So, what does it do? The first few lines declare the variables we need, and record the current time. This allows us to record how long the

program has been waiting for you to hit the mole, and to take the mole away if you're too slow. Then *GETEVENTA32* sets up a watch for pen and other events.

The *DO...UNTIL* loop continually waits for input until the time is up or the mole has been hit. First is an *IOYIELD* instruction, which allows the system to check for events. Then an inner *WHILE* loop checks to see if any events have occurred, repeating to clear any events that are waiting to be responded to. This method of input was described more fully in the *Taking Control* tutorial.

Inside the *WHILE* loop, a strange-looking *IF...ENDIF* construct eliminates all events we're not interested in. The value &408 in the *IF* refers to pen events. If the event is anything other, we do nothing. The value 0 in the first *ELSEIF* refers to a *pen down* event, i.e. the tapping on the screen. If the pen event isn't one of these, then we ignore it. The next two *ELSEIF* lines check if the pen tap was outside the rectangle occupied by the mole, and ignores the event if so. That leaves only the possibility that you have tapped on the mole, and in this case, *hit%* is set to record the fact. Finally, the second *GETEVENTA32* statement sets up a watch for the next event.

Once the mole has been hit or the time is up, the *GETEVENTC* statement will cancel the current event watch and return the hit/miss value to the *MoleUp%* procedure.

As far as pen input is concerned this tutorial, to keep things simple, tells only part of the story. The line *ELSEIF ev%(4)<>0* checks for a pen down event, but there are other events that you can check for too. *EPOC32* machines recognise the opposite, *pen up*, and send an event when the pen is lifted from the screen. Its value is 1 instead of 0. Finally, there is the *pen drag* event, whose value is 6, and is sent each time the pen moves while in contact with the screen. These latter events are useful for drag and drop input, and will be left to a future tutorial.

But now I leave you with the *Mole Hunt* game. You may want to make improvements to it. Be sure to let me know of any enhancements to the game!

EPOC

ENTERTAINER

Editor: Damian Walker

Issue 31: Sep 2010

In this issue: *Le Compte est Bon*

Welcome to the September issue of *EPOC Entertainer*! Having been published with its now customary lateness, I hope you will think that its contents are worth the wait.

Responses from last month's reader survey have been coming in steadily, but it would be nice to have some more. I've added in a little incentive for those who haven't yet got around to emailing me with responses. Please do find the time to help me as it really would be appreciated.

The tried and tested formula of two game reviews has been continued this month, with the games *Le Compte est Bon* and *Imperium* getting attention. It's nice to see that one of the games is still available from the authors, but unfortunately even software sleuth John Spillett has drawn a blank on *Imperium* so far.

This issue also sees the final instalment of the programming tutorial *Mightier than the Sword*. This has been an unusual tutorial in that the real subject matter (stylus input) only appears in the last article, but doing it this way has allowed the by-product of a full working, if simplistic, game for you to play and modify. It would be nice to see what improvements readers can make to this game.

Next month I'll have some news for you about previously missing software, along with the usual reviews and, if inspiration hits me, perhaps something completely new. Your ideas, sent through the reader survey or otherwise, might well help me decide!

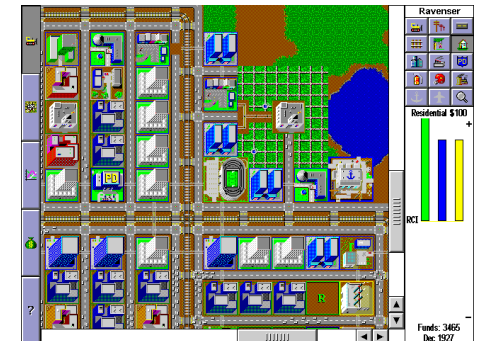
Comments and questions are, as always, welcome to the usual address.

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More survey responses needed!

Fill in last month's reader survey and you might receive a free copy of Atelier's SimCity Classic!

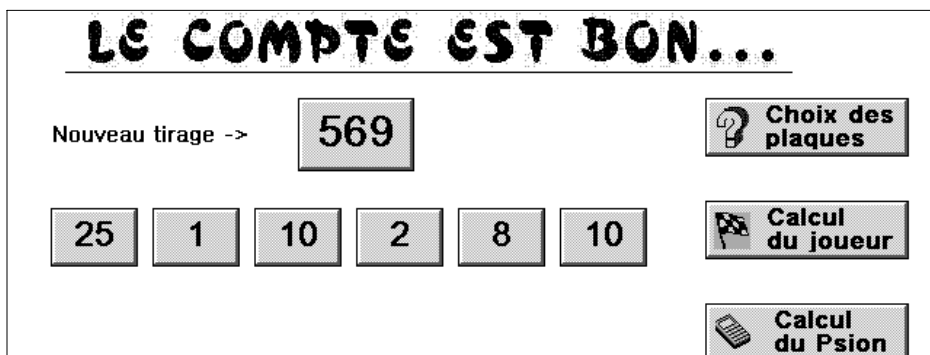
Last month *EPOC Entertainer* included a reader survey. Responses are still being collected, and to give you an extra incentive to send in your feedback, the magazine is offering one used copy of the excellent commercial game *SimCity Classic*, as reviewed back in issue 9. The winner's name will be drawn at random from all those who send back the survey by the end of September (including those who have already responded now), and the result will be announced in November's issue. So what are you waiting for? If you've not already answered the six simple questions of the survey then get your copy of *EPOC Entertainer* 30 from the web site and get in touch!



The Numbers Game

A partial conversion of a popular TV quiz show is looked at in detail.

Viewers in the UK will be familiar with the Channel 4 quiz programme Countdown, which was derived from a French game Des chiffres et des lettres. Two players compete in a number of 30-second rounds, alternating between words and numbers. The letters game has players trying to form the longest word from a random selection of letters. In the numbers game the players must use randomly selected numbers to achieve a randomised result. These games are good for viewers to play along to, as they get the brain working



and don't need any specialised knowledge.

Le Compte est Bon, a game by Gilles Contastin and Gérard Millet for the Series 5 and Revo, implements a slightly altered version of the numbers game. A random 3-digit target is chosen by the computer and six number cards are drawn. The player can choose how many "big" number cards (25, 50, 75, 100) and "small" number cards (1 to 10) are drawn or may leave that choice to the computer. You then have to use the four rules of arithmetic, addition, subtraction, multiplication and division, combined with the six number cards to achieve the target. An example game might have you drawing 50, 6, 10, 3, 2 and 7 with a target of 137. You could achieve that by $3 \times 6 \times 10 = 180$; subtract 50 to give 130; then add the 7. You don't have to use all the numbers.

The Psion game differs from the TV quiz in that there is only one player, making it a puzzle,

and that there is no time limit, though there is a timer. In all other respects the game is faithful to the original. It makes a surprisingly addictive little game. I spent far longer playing it than was really necessary for the purpose of writing this review. The number puzzles are real brain teasers. If one really stumps you and you want to know if it's even possible, you can give up trying and ask the Psion to solve it for you. It usually can, but the solutions it comes up with tend to show its knowledge of, for example, its 29 times table.

Graphically the game is nothing to write home about. Some effort has been made to make it look distinctive, with a unique font in its title and nice 3D buttons representing the number cards. The interface is straightforward, though it may take a minute or two to figure it out if you don't speak French. Sound is limited to beeps.

If you have beeps turned off in the Control Panel, as I did, then you hear nothing, which I found a little confusing at first as I could see sound options on the menu. It's a shame that a few better sound effects weren't used.

But despite a few minor niggles with presentation I think Le Compte est Bon is quite a pleasing little puzzle and if you like numbers games, it is well worth giving it a little bit of space on your Revo or Series 5 device.

Author	Gilles Contastin & Gérard Millet
URL	psions5-3495.pagesperso-orange.fr
Licence	Freeware
Systems	Series 5 & Revo
Rating	☆☆☆

Imperium Mundi

A review of Palmscape's real-time strategy game Imperium for the Series 5.

There are two real-time strategy games for EPOC32. One is *No Man's Land*, which I reviewed in a past issue of *EPOC Entertainer*. The other is Palmscape's *Imperium* by Simon Jacobs, which I finally get around to reviewing for this issue.

Strategy war games for computers can be divided into two types. The older turn-based strategy games have one player taking his turn to move his forces and make his attacks, while the other looks on. The newer real-time strategy (RTS) genre has both players simultaneously issuing orders to their units, while those units move around in something resembling real-time. RTS games with a modern or futuristic land war setting often compare themselves with the PC game *Command & Conquer*, and *Imperium* is no exception.

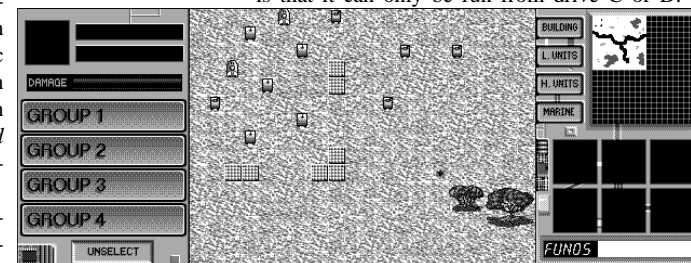
The first thing I noticed when I first saw *Imperium* was the stunning graphics. It's difficult to avoid comparing *Imperium* and *No Man's Land*, being the only two RTS games for EPOC32 and both having a similar setting. In graphical richness *Imperium* wins. Being written for the Series 5 sized screen only, it has beautiful monochrome graphics that show what the Series 5 screen can really do. They compare well to the flat shades of *No Man's Land*. In quality they are a scaled-down version of what you'd expect to see on games for desktop machines. My only criticism is that not enough attention has been paid to clarity. We all know the visibility issues with a Series 5 screen, and when I stopped admiring the scenery and started playing the game, I realised it could be quite difficult to tell one type of unit from another. Had the units been a bit larger, this could have been resolved while keeping the attractive graphical style.

Now we move on to game play. There are two modes of play, *conquest* and *imperium*. Conquest

removes the economic element entirely; there is no production, you simply have a fixed force of tanks and other vehicles and you have to destroy the enemy before they destroy you. This, the help dialogue boxes tell me, is for getting used to the controls. The *imperium* mode gives you a base and allows you to construct buildings, including factories. This in turn allows you to build your own army. There is a reasonable variety of unit types to play with, in contrast to the paltry two types of tank in *No Man's Land*.

The unregistered version restricts you a little. The larger units aren't available, and neither are the factories that build them. This would be fine, except that it appears the game can no longer be registered. Nobody has yet issued a generic registration code as far as I can find. So it seems that, currently, only those who registered in the past will get to enjoy the game in its entirety.

I do have a problem with the game. The first is that it can only be run from drive C or D. I



complained about this previously in my *Dark Horizon* review, and my reasoning applies here. An application can easily inquire of the OS what drive and folder it has been loaded from, thus directing it to its support files. Why does any application need to restrict itself to drives C and D?

Despite this, *Imperium* seems to be a good game. Unfortunately as it can't be registered any longer, you're restricted to the smaller units, but it's worth playing if you like RTS games.



Author	Simon Jacobs (Palmscape)
URL	psion.cynningstan.org.uk
Licence	Shareware
Systems	Series 5
Rating	☆☆☆