

Il est des questions qui reviennent de ne pas en faire profiter l'ensemble périodiquement et pour lesquelles un petit nombre de personnes ont la gentillesse de donner des réponses à titre individuel. Il serait bien dommage que pour en donner.



Subject n°120 - Basic programming

Question from Norik : I made a simple skeleton for writing something like a game, and it works. In the example below, some things appeared on the screen at the same time, like walking monster, flying bird, etc.. And if at the same time is pressed a key 'Z' then program understand, that it command to move left (just simple example) So, all this things appears to be simultaneously, like in separate threads.

```

10 REPEAT
20 CH1$=""
30 CH2$=""
40 REPEAT
46 REPEAT
47 CH1$=KEY$
50 REM Here will be our code like birds, monsters...
60 REM Flying bird
65 GOSUB 1000
70 REM Raining
75 GOSUB 2000
80 REM Walking monster
85 GOSUB 3000
149 REM End of our code like birds, monsters, etc.
150 UNTIL CH1$<>""
160 IF CH1$="" THEN CH2$=KEY$
170 REM Here will be key handling
180 IF CH2$="Z" THEN GOSUB 5000
200 UNTIL CH2$="Q"
210 STOP
1000 PRINT «flying bird»
1010 RETURN
2000 PRINT «rain»
2001 RETURN
3000 PRINT «walking monster»
3010 RETURN
5000 PRINT «left pressed»
5001 RETURN

```

The question is: How I can add simultaneous playing music, like in separate thread... So, monsters walking, birds flying, raining, when user press 'Z' our hero goes left, AND we can listen sounds of music at the same time!

Answer from Peter 'TheSpider' xxxxxxx : Unable to answer your question about «simultaneous playing music», but can answer this.... In the first lines, ch1\$ and ch2\$ would be treated the same, ie ch\$. Oric Basic only recognises the first two characters of the name of a variable.

Answer from André xxxxxxx : [ch1\$="" & ch2\$=""] Does this work? I thought only the first two character were significant. [Simultaneously playing music] For best results, MUSIC and SOUND are often handled by an interrupt routine (or even, in arcade machine, by a second CPU). Otherwise, why not just add to the inner loop a GOSUB to a subroutine that issues the adequate calls to MUSIC, SOUND and PLAY?

Again from Norik [Does this work?] Yes, it works! Really!

Answer from André: Looked at the code: It works

because the uses don't overlap. But for the BASIC interpreter, it's the same variable.

Answer from Jérôme xxxxxxx : In fact, André is right, it does not work, really :) In Basic, only first two characters are significant. Try this:

```

10 CH1$="CH1"
20 CH2$="CH2"
30 PRINT CH1$

```

... You'll see that when you ask for ch1\$, it prints ch2.

Answer from Steve xxxxxxx : [Simultaneously playing music] What I'd do would be to use Sonix, the excellent music editor from Twilghte. You make the music using that program and then load the files up and set it off with a poke. Your game should play OK with the music running. If you want to use BASIC it is far more difficult as you need to have a MUSIC command when you want a key press function and you can't do both at once. I think the only way to load the sequence in memory (POKEing DATA) and then CALL it to play the music, which should allow you to go and look at keypresses. I think the music in the Atmos demo is in memory like that (?)

Again from Norik: Thanks, I'll try sonix. It produces basic files with data strings? Anyway I'll try and hope it will help.

Answer from Steve: No it produces MC files. It needs a disk system as far as I know but I don't see why the files couldn't be used on a tape file once programmed.

Answer from Pe@ceR : You can use sound data and play it thru all the repeat-until loop... Modifying your code:

```

1 DIM NOTE(20),DURATION(20)
2 FOR U =1 TO 20: READ NOTE(U),DURATION(U)
3 NEXT
4 DATA 300,10,400,20,100,10,200,20,400,30...
Code your music data here, for SOUND command's
frequency parameter and duration of each note)
5 NN=1:DD=DURATION(1):SOUND 1,NOTE(1),15
  [10 REPEAT
  .../...
  3010 RETURN]
5000 PRINT «left pressed»
5001 RETURN
9999 REM Playing routine
10000 DR=DR+1
10020 IF DR=DURATION(NN) THEN NN=NN+1:DR=0:SOUND
1,NOTE(NN),15
10030 RETURN

```

I did not check the program. You can adjust playing length of each note by modifying the data. This will allow you to play sound continuously while all other things are happening... (alternative to Jon's machine coding program of course, just by Basic commands).

Subject n°121 - Microdisc PSU

Question from Lionel xxx : My Microdisc power supply has burnt and it seems you [*Steve xxxxxxxx*] are THE person who might help me. It's a first generation Microdisc with heat dissipator at the back, and the power supply has three connectors, two for up to two Microdiscs and a jack for the Atmos.

Answer from Steve xxxxxxxx : Isn't there anyone out there with a Microdisc? Surely someone knows something about these things? Can't a modern PC PSU be adapted to work the Microdisc for instance?

Answer from Fabrice xxxxxxxx : I still use the same original PSU with my Microdisc... The problem for its replacement is that it doesn't deliver +5V like modern PSU. Instead, it delivers something around 9 or 10V: This gets regulated by the internal 5V regulator of the Atmos, and also by the +5V regulator of the Microdisc. Some people don't plug the jack into the Atmos, and thus the Atmos receives its +5V through the flat cable of the disc controller. Because of this, the Microdisc has a +5V regulator with enough power for the Atmos plus the disc controller, plus the floppy drives. Hence the big (yet hot) heat dissipator at the back (from memory, it's a LM323 regulator, so it can deliver 3A). Several people use a modern switching PSU nowadays. In this configuration, you have a +5V regulated supply: no need to go through the internal regulator of the Atmos, or through the Microdisc one. Instead, you have to bypass the Microdisc regulator, and the Atmos is powered through the Microdisc flat cable. Some people says that such flat cables are not thick enough to power the Atmos and some extensions: I'm no expert... Ok, this was about the +5V supply. Now, for the +12V part (needed for the Microdisc and the floppy drives)... From memory, there's a 7812 regulator inside the Microdisc, I have to check. This would mean that the original PSU delivers something around +15V. Once again, with a modern PSU offering regulated +12V, you don't have to go through the regulator, so you can use a PC PSU and completely remove the whole back of the Microdisc and have the PC PSU directly connected to the power connector of the disc controller board, and to the floppy drives. PS: I do use a PC PSU on my Telestrat, because the original Stratos regulators were removed and thus the Telestrat needs regulated +5 and +12V. Be sure to identify the +5 and +12V wires on both the PSU plug you are going to cut, and on the disc controller board power connector. I recently used a PC PSU that had inversed yellow and red colours, and burnt several chips of the Telestrat by sending +12V instead of +5V :-(

Subject n°122 - CLS routine in the ROM

Question from Olivier xxxx : I don't understand the source of CLS (clear screen). This address is 0xCCCE. I don't understand how clear the screen! If someone could explain to me...

Answer from Fabrice xxxxxxxx : At \$CCCE, you have a LDA #\$0C. \$0C is the «Form Feed» ASCII code, it is the usual ASCII code for clearing the screen (try a PRINT CHR\$(12), or even a simple CTRL-L keystroke). After this instruction, you have a sequence of BIT instructions that are only here in order to hide other LDA #xx instructions in their operand address (this is a rather common trick used by 6502 programmers), then you have the «print char» routine itself. In fact, it doesn't do a lot, because the print char routine relies on the «VDU» routine, vectorised in \$0238: JMP \$F77C.

This VDU routine is responsible for displaying a char to the screen: It first determines if the char to display is a printable ASCII char, or a control char (0 to 31). Since you are interested by a control char, it calls the routine in F602: This one uses a table of relative branches in order to select the correct routine for each of the 32 control characters. So, the actual routine for CTRL-L is in \$F695. This one gets the number of lines to clear (from \$027E), the address of the first line to clear (from \$027A-\$027B), and it loops on routine \$F71A in order to clear all these lines one by one. Hope this helps...

Subject n°123 - Log file with Euphoric

Question from Olivier xxxx : I would modify Euphoric to write into a file much information. For example, if 6502 write/reads an address between 0x300 and 0x3FF, Euphoric writes into the file the following lines:

Access 0x300 when Program Counter from 6502 is equal 0x5544

Access 0x303 when Program Counter from 6502 is equal 0x65FF... Is it possible?

Answer from Fabrice xxxxxxxx : Don't you want to use the integrated debugger? (Press F11). It has a nice view of all the VIA contents, with changes to the internal state appearing in red...

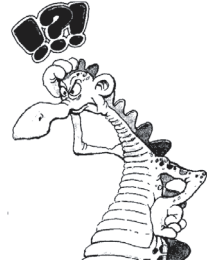
Again from Olivier: I want to get a trace log file... I'm going to do statistics about access into 0x0300-0x03FF.

Answer from Fabrice: Are you running Euphoric under Linux? Then you just need to add calls to fprintf in the via.S file.

Subject n°124 - Screenshot on Euphoric

Question from Peter 'TheSpider' xxxxxxxx : Having a problem getting my Euphoric (v1) to produce a screenshot. Running Win98. I vaguely remember that you had to use [SHIFT] or [CTRL] or something. Tried those but could not get it to work. Any ideas?

Answer from Fabrice xxxx : You just have to press F12 to get a screenshot...



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de ne pas en faire profiter l'ensemble de la communauté Oricienne. Cette rubrique est donc ouverte à tous, aussi bien pour obtenir des renseignements, que pour en donner.

Subject n°162 - Jasmin drives

Question from Steve xxxxxxxx: Just curious, are Jasmins not able to run other DOSs?

Answer from André xxxxxxxx: Since no two Oric FDCs are exactly compatible at the hardware level, not directly. The Microdisc and Jasmin controllers use similar drives and FDC (1791 and 1770 respectively) but some of the hardware is different. The boot procedure and the methods to access the overlay RAM and select drives are different. The FDC registers are also mapped at different addresses. It may be possible to modify FTDOS to run on the Microdisc or, conversely, to port the Microdisc DOSs to the Jasmin but I can't say for sure.

From Steve: Well the Cumana and Microdisc are compatible but that's when the Cumana has a Microdisc type Rom. I wonder if the Microdisc Rom will fit in the Jasmin. Maybe the hardware may stop it working?

From André: Seeing as the FDC registers are mapped at different addresses, I'd be surprised if that did anything useful.

From Mickaël xxxxxxxx: Sure, but anyway it would be interesting to see what amount of work would be necessary to get Sedoric working on the Jasmin drives. And perhaps modifying the EPROMS would be required. If it only needs some patches in the low-level access routines, it could be interesting no? It would make the Jasmin drives a lot more interesting suddenly.

From Fabrice xxxxxxxx: Basically, the Jasmin electronics connect the DRQ signal of the FDC to the IRQ line of the Oric, meaning that you get an interrupt every 32 cycles when you read/write a disk... the interrupt handler has to be damn short, it can't even save registers... IMHO, it's not a very big task to port Sedoric to the Jasmin, it might have been done already (don't know... André?). I guess the biggest problem is

Subject n°163 - Sedoric SEARCH Syntax

Question from Peter 'TheSpider' xxxxxxxx: Anyone knows how to use the Sedoric SEARCH command? All that the user guide says is: "SEARCH FNA Checks if a file is on disc". I have tried using this with files I know NOT to exist, and actual files. Nothing is displayed after the command, and I have no idea if a value has been left anywhere. Could this command be used in a program, where the user inputs the filename string, and then the program checks to see if the file exists? If not the program would then inform the user.

Answer from Fabrice xxxxxxxx: SEARCH checks if a file is on disc. If so, the system variable EF = 1, if not, EF = 0. Ambiguous filenames may be used: when EF = 1 it means at least one match is found. E.g:

```
10 SEARCH "TEST.COM"
20 IF EF THEN LOAD "TEST" ELSE
PRINT"file not found"
```

at boot time... Jasmin's Eprom won't boot Sedoric, so an hybrid FTDOS/Sedoric disk has to be defined (in the same way than Sedoric disks, which are actually OricDOS/Sedoric hybrid disks...). A few years ago, I asked if that adaptation was of interest... People replied me that very few Oric users still use Jasmin, and that even those who used to have Jasmin had switched to Microdiscs...

From Andre: [don't know... André?] Hah! Good one, Fabrice. :-D [those who used to have Jasmin had switched to Microdiscs] I haven't. Sedoric appears to be more advanced than FTDOS but I'm not sure the additional features are worth the trouble of switching, especially if I have to do the port. My use of FTDOS has always been limited to !SAVE and !LOAD anyway (if I recall correctly; I haven't used the thing for more than decade).

From Steve: [Sedoric appears to be more advanced than FTDOS] If you want to use an Oric I think it is worth getting a Sedoric system running. It makes you compatible with others if nothing else. If the porting etc. is difficult then a new disk interface would seem a better idea. Shouldn't be too hard for you to build ;o)

From Fabrice: [Hah! Good one, Fabrice. :-D] ? Seems my sentence brought a meaning that wasn't intended... I was asking if you know whether this port has already been done by someone? Or... did you refer to some conversation we might have had about it ?-)

From André: That read like " Oh, it wouldn't be that hard to build a life-size Eiffel tower replica with a hand tied in your back and a piano balanced on your nose. In fact, I wouldn't be surprised if André had already done it in his spare time. "

From Fabrice: LOFL! Excellent, I can't stop imagining that picture !-)

From André: I aim to amuse. :-)

From Peter: Excellent! Thanks so much my friend. This will help greatly. As I said, the Version 2.0 Users Guide which I have (and yes I am using version 3) does not say this.

From Bob: Okay in no way do I think I anywhere near the god like status of Fabrice but shouldn't line 20 above be like this?

```
20 IF EF=1 THEN LOAD "TEST" ELSE PRINT
"File not found"
```

Of course that's as far as my programming skills go and I'm not even sure if I'm right! Please forgive me if I'm wrong Fabrice, I'm only trying to correct what I believe to be a minor mistake :) IF I'm right THEN BOB=SOMETHINGRIGHTFORACHANGE

From Peter: Actually you and Fabrice are BOTH right. The line could say any of these: 20 IF EF THEN... or 20 IF EF=1 THEN... The confusing thing is that the TRUE command returns a value of -1, not +1. Therefore

you could NOT write: 20 IF EF=TRUE THEN... As 1=1 is false! However, you could write instead 20 IF EF=FALSE THEN PRINT "File not found" ELSE LOAD "TEST" This would work because 0=0 :) In Oric Basic, the IF statement is looking for a statement that is TRUE. The ELSE part takes care of the FALSE. With testing I have discovered that as long as $X < 0$ then 'IF X THEN'

will always be true - test it for yourself.

```
10 REPEAT
20 INPUT "X=" ; X
30 IF X THEN PING ELSE ZAP
40 UNTIL X=0
```

The things you learn still with Oric Basic, and that Bob can actually be right ;)

Subject n°164 - Programme Basic au format texte

Question de Yann xxxxxxx : J'ai converti au format texte un programme retrouvé dans Hebdogiciel n°55 et qui s'intitule "BOLIDE". Malheureusement, je suis de nouveau confronté au même problème de conversion au format "Tap" de ce fichier: la commande Txt2bas ne semble rien vouloir donner. Je joins à ce mail ledit fichier : Peut-être trouveras-tu une solution à ce petit problème.

Réponse de André xxxxxxx : C'est la faute à Micromou. Le programme Text2bas de Fabrice ne marche qu'avec des fichiers textes au standard ASCII simplex ou "texte DOS" ou encore à la rigueur "ANSI Windows", mais surtout pas avec du RTF Micromou. Je vais voir si j'ai le temps de déboguer ton programme. Sinon essaie de le convertir au format texte. J'utilise

un petit traitement de texte Ascii super : Note Tab Light v4.83 freeware (<http://www.notetab.com>) mais je pense qu'il en existe d'autres. Evite Micromou en tous cas... Sa conception des "par exemple fout une belle merde dans nos programmes..." Et s'il n'y avait que ça!

Suite de André : J'ai suivi la méthode suivante : Chargement de ton Rtf dans MsWord, sauvegarde au format texte MsDos. Enfin moulinage avec Txt2bas (version du 11/09/2002). Ça plante parce qu'il y a des tabulations que je remplace par 3 espaces. Ce faisant je remarque qu'il y a des fautes de frappe évidentes (lignes 1020, 1080, 1401, 1404 par exemple). Mais comme je n'ai pas le listing original, je te laisse le soin de revoir ça toi-même. Je re-mouline avec Txt2bas. Ça plante à la ligne 100 et c'est lié à une ligne de DATA défectueuse... A toi de jouer!

Subject n°165 - Microdisc power supply

Question from Alfonso xxxxx: Which is the current consumption of Microdisc for both voltages?

Answer from Fabrice xxxxxxx: About the actual current consumption, I don't know, I guess it depends if the drive or head motors are starting or idle... What I can tell you is the maximum current delivered by the power supply, would that be ok? Here is what is written on my Microdisc

power supply: 9V DC @ 1,6 A and 12V DC @ 0,9 A. The 1,6A allows to power an Atmos plus two Microdisc units (a Master and a Slave), each equipment having its own regulator to extract +5V from the 9V. If you use a modern PC switching power supply, you don't need these regulators, and even a small 60W power supply will be enough to power all your Oric hardware...

Again from Alfonso: Great! That's just I need know.

Subject n°166 - Telestrat: 'Drive not in line error?'

Question from Bob: On my Telestrat when I use the Stratoric Rom it gives me 'Drive not in line error?' Any idea why it would do this? Also I can only type something if I press the reset button on the side as if I just switch on I get the Stratoric V3 screen and nothing else? My drive is configured as B as that's what comes up when it's in

HyperBasic mode.

From Fabrice xxxxxxx: Stratsed can boot from any drive, but Sedoric needs to boot from drive A...

Again from Bob: Hurray! It works :) I took the floppy drive apart and changed the drive setting from B to A and then inserted my Sedoric V3 disk into the drive which Stratoric loaded first time :) Thank you :)

Subject n°167 - Microdisc ribbon cable

Question from Robert xxx: Is there someone within the Oric community who can help me to resolve the problem of configuring a second 3.5" disk drive on my Oric Atmos? I have connected a 720K, 3.5" double density disk drive unit (same as that used on the BBC Master computer of the same era) to the disk interface and all appears ok. I can load/save files etc so the system itself is working fine. However I wish to add a second drive to save me from all those disk swaps. Comment: With the Microdisc 3" drive there are DIP switches that can be set so that the disc drives can be individually addressed after they have been configured using the operating system disk. When I connect two 3.5" drives to my disk drive interface there are no DIP switches to set and they each respond to the same disk command. The disk drives I am using are both Citizen OSDC-29C. Each drive has one very small single-throw selector switch at the back marked "DSSW"

(which I presume is a "drive selector switch") with positions "0" or "1". I have tried setting one drive (master) to "0" and the other to "1" but both 3.5" disk drives still respond to the same disk operating command. Do I need to make some other modifications (to the 34 way ribbon cable or connector for example) in order to get the system to function properly?

Answer from Jean xxxxxx: 1) I assume that you don't want to buy a 3.5 " 1.44 Kb disc drive (its default setup is B) 2) the wires involved in drive selection are 6, 10, 12 and 14 (wire 1 is the coloured one). If I had the time to test, I'd cut the ribbon cable to connect wire 10 from the 2nd drive to wire 12 from the Microdisc before the 1st drive. If this does not work, try any combination you can imagine ... preferably wire 12 to wire 10.

Again from Robert: Thank you for your help. After swapping over the wires 10 and 12 (and using the drive connected after the "swapped" wires as the master), everything worked fine. Kind regards.