Members wishing to submit helpline requests via email can use the email address helpline@quanta.org.uk or if you prefer to use traditional post, please send the helpline request to me via the address printed inside the front cover of the newsletter.

Obviously, we cannot guarantee to answer every query we receive, but we will do our best! Where we have been unable to answer the queries, we may print the help request as an open request in the newsletter to ask if any of the readers can come up with a solution. And, of course, if readers feel that they have a better solution than we came up with, or would like to correct any errors we make, please write to us!

Q. I have always found the loading order of things in a Boot file totally incomprehensible. Are there any guidelines you could offer me?

A. I covered this in a past article. Volume 27 Issue 1 page 12 onward, although it was a fairly small part of a long article, so I'll try to explain it further here.

Basically, there is a logic (albeit a little bit weird when you are not familiar with it). Lightning or Speedscreen accelerators, if you use them, need to go first because they do some changes to text and graphics output which some extensions might need to know about when they are started in turn, then Toolkit 2,then pointer environment if using QDOS, then other toolkits or extensions and so on as listed below. This is something that experience and regular use of the QL helps you understand. The order of items in a boot file is not something you can easily figure out if you don't have the experience which comes from regular use (or good advice from a friend!)

You need to be aware that things vary slightly depending on whether you use QDOS or SMSQ/E, and whether you use pointer environment or not.

I. If Using Pointer Environment With Qdos:

1. Lightning or Speedscreen if used. These change a lot of system basics like graphics and text routines, safest to put them first.
2. Toolkit 2. Some versions might need a TK2_EXT command to activate the toolkit after it has been loaded (the manual usually explains this).
3. Pointer Environment - ptr_gen, wman and hot_rext (in that order - wman won't work properly unless it first finds ptr_gen).
4. Menu Extension (Jochen Merz). Needs to be after pointer environment but before other things which might use it.
5. Other toolkits and extensions. Difficult to give advice on the order of each toolkit, since most don't mind what order they come in. Some may say in their instructions that they need to go before toolkit x or after toolkit y – this is something that only reading the instructions and experience will teach you.
6. Define hotkeys and any HOT_RES, HOT_CHP etc. Hotkey System commands to load programs resident in memory.
7. After all extensions have been loaded and hotkeys defined, add a HOT_GO command. This has to be after any RESPR or LRESPR commands because HOT_GO starts a job running to make hotkeys work. RESPR and LRESPR won't work properly if a job is already running.
8. Anything else the BOOT program needs to use (e.g. set QL clock, special disk commands, DEV or SUB settings, PRT_USE and SDUMP settings)
9. Chain any further BASIC programs with LRUN or MRUN as appropriate.

II. If Using Plain Qdos Without Pointer Environment:

1. Lightning or Speedscreen if used
2. Toolkit 2
3. Other toolkits or extensions (usually, any order, some older ones might be fussy but no hard and fast rules)
4. Anything else the BOOT program needs to use (e.g. set QL clock, special disk commands, DEV or SUB settings, PRT_USE and SDUMP settings)
5. Chain any further BASIC programs with LRUN or MRUN as appropriate.

III. SMSQ/E AND QPC2

1. DON'T try to use Lightning or Speedscreen - SMSQ/e doesn't need them.
2. Toolkit 2 is already in SMSQ/E, don't try to load it, although just a TK2_EXT command will do no harm.
3. Don't load pointer environment files - they are built into SMSQ/E.
4. Menu Extension (Jochen Merz).
5. Other toolkits and extensions. Mostly not fussy about order, except for one or two older ones.
6. Define hotkeys and any HOT_RES or HOT_CHP to load programs resident in memory.
7. After all extensions loaded and hotkeys defined, add a HOT_GO command. This has to be after any RESPR or LRESPR commands because HOT_GO starts a job running to make hotkeys work. RESPR and LRESPR won't work properly if a job is already running.
8. Anything else the BOOT program needs to use (e.g. set QL clock, special disk commands, DEV or SUB settings, PRT_USE and SDUMP settings)
9. Chain any further BASIC programs with LRUN or MRUN as appropriate.

Hope that's a little use in explaining it. Years ago, I used to find the boots a bit confusing (like the old autoexec.bat and config.sys and so on in DOS). Over the years I just got used to it, then one day someone (I think it might have been Jochen Merz) explained the logic to me and it all suddenly fell into place. Another good source of information on this was the Qpac2 manual. although that can be rather heavy going in places.

Q. I'm sure that I once saw a QL with a Gold Card having 4 floppy disk drives connected. I can only connect two drives to mine. Is this possible, or was I seeing things?

A. A standard Gold Card only allows up to two disk drives to be connected, while a Super Gold Card allows up to four disk drives. The Super Gold Card board has 2 disk drive connectors, and twin drives can be connected to both sockets, giving a total of four. Maybe the system you saw had a Super Gold Card? Another possibility is that if it was a standard Gold Card, or maybe even a particular version of the Trump Card, with the addition of a small expansion board (see picture below) manufactured by Miracle Systems Ltd which decoded the addressing for the disk drives and had two disk drive sockets allowing two twin disk drives to be connected, total of four drives. These didn't necessarily have to be the same type of drives either, the interfaces were very forgiving of mixed drives – for example, you could end up with a twin 3.5 inch drive and an old 5.25 inch drive for transferring software from the old 1980s 5.25 inch floppy disks!

Figure 1 – The 4-drive adapter for Gold Card, from Miracle Systems

Q. Is it possible to connect a flash memory card to my QL? I have a RomDisq, but this has only 4MB.

A. Good news on several fronts here.

The first is that Peter Graf has been designing a small SD card interface which plugs into a QL and he has been seeking opinion on how it would best plug into a QL. One suggestion was by using a bidirectional parallel port like the one on a Super Gold Card. Another idea was to build it into one of the Microdrive slot positions to mount it and it would connect to another part of the QL circuit board without trying to use the Microdrive circuitry.

Secondly, Adrian Ives has been busy designing what he calls a Ser-USB device using USB-Wiz boards. This offers both a SD card slot and a USB port offering the use of USB pen drives (also called Thumb drives in some countries). This connects to the QL via a serial port.

If you have a Qubide IDE interface for connecting hard disk drives to a QL, you may be able to get hold of memory card readers which can plug into an IDE socket and work pretty much like a hard disk. They are not that common and can be a bit expensive to buy, but at least they would work with a modern Qubide card. Note: it can be hit and miss – not all such IDE flash memory card readers work well with Qubide, so take advice before buying or if possible confirm that you will be able to return the device if it fails to work with Qubide or if it turns out to be no good for you. If you buy

goods over the internet, the Distance Selling Regulations *may* offer some cover and the right to reject goods bought "blind" over the internet as long as you tell the trader concerned quickly (usually within a few days) that you are rejecting or wish to return the goods for a refund.

If you are using a QL emulator on a computer which supports the use of flash memory cards, the system may be easier than on a standard QL system. Memory cards usually appear as a standard drive in the list of disk drives on your computer. For example, a PC might have the following drives:

Drives A: and B: are usually floppy disk drives

Drive C: is usually the main hard disk drive

Drive D: might be a CD-ROM or DVD disk drive (or occasionally a second hard disk drive).

Drive E: might be a flash memory card reader such as an SD card reader.

In this case, just think of the memory card as a hard disk drive. If the emulator holds its files in a QXL.WIN on a hard disk, you will most likely be able to format (or copy to) a QXL.WIN on the flash memory card too. A QXL.WIN is a large file on the host computer's filing system which holds all of the emulator's QL files, to all intents and purposes a QL filing system which lives in a single file called QXL.WIN within the host filing system – a system within a system.

Q. I recently started using pointer environment and found that the ALT-Enter keypress to recall the last entered line for editing no longer works. I don't use hotkeys, so I can't have done anything to cause it not to work, surely?

A. When you have pointer environment on your system, in particular the hotkey system 2 installed by loading the hot_rext file which is part of pointer environment system, the Alt-Enter keypress is then controlled from what is called the Hotkey Job. This is a small program which runs in the background supervising the hotkeys. This program only starts running when a command called HOT_GO has been entered (usually in a BOOT file). It can be stopped with a command called HOT_STOP and the Hotkey Job can also be removed with the RJOB "HOTKEY". Very rarely, the Hotkey job might fail due to an error. When ALT-Enter fails to work, it is because this program called HOTKEYS has stopped running for whatever reason, or was never activated in the first place. Check that the boot program has a HOT_GO command to start these hotkeys automatically. See the question above about the order of items in a boot program for advice on the best place to put a HOT_GO command, or of course you can manually type in a HOT_GO command to start it all going if you prefer.