

What Is SMSQ/E?

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I suppose I am as guilty of anyone else for banding about terminology and names without really giving much of a thought to those QL users who consider themselves less experienced users and who may still be using an original black box QL.

So, I thought I'd discuss the alternative operating system called SMSQ/E in this article and go through exactly what it is, what sort of system you need to run it and what benefits it can bring you.

First of all, what is an Operating System?

It's a core program on a computer which controls the computer, handles the devices with which you and the computer communicate (screen, keyboard, etc), and generally provides the bits of code that your programs need to make use of to run on the computer. On the QL, unlike many computers, this Operating System is built into the machine on a couple of ROM (Read Only Memory) chips inside the QL. While this is convenient to allow the computer to start up quickly, it does mean that to upgrade the system on a computer like the QL you'd normally have to replace the original ROM chips with more recent ones.

The operating system built into a QL is called QDOS (which stands for QL Disk Operating System, although many people have assigned other sometimes more frivolous names!). The ROM chips holding the QDOS operating system also includes the SuperBASIC interpreter which runs any BASIC programs you write on the QL.

Over the years, various people have come up with replacement ROM chip sets to replace the original QDOS. The best known is the Minerva system, originally released by Qview and more recently supplied by TF Services. Adding this to a QL involved opening up the QL and removing a couple of chips, then plugging in the Minerva chip to take their place. Other people have also produced replacement ROM chips, such as the MGUK ROM from John Alexander many years ago.

QDOS was an operating system designed for the QL by Tony Tebby while he worked at Sinclair before the launch of the QL. Tony left Sinclair shortly after the QL launch and set up his own company, Qjump, who released several major products for the QL.

Some years later, Tony Tebby produced an operating system called SMS. This was supplied on a plug-in cartridge to be used on some Atari computers. SMS was a precursor to the SMSQ and SMSQ/E we know today.

Later, Miracle Systems released a plug in circuit board for PCs, which could be used to run QL software. It was called a QXL card and it needed an operating system of its own, which was sufficiently compatible with QDOS and QLS to be able to run the software, but was also able to handle the particular requirements of the QXL card and the PC. The QXL card used the PC's screen, it should run under either Windows or the DOS operating system of PCs at the time, and of course it had to be able to cope with the particular micro-processor chip which Miracle Systems chose to use on the QXL card (a later and more powerful version of the 68008 chip used on the original QL). It must have been no mean feat for Tony Tebby to come up with a system which was sufficiently compatible with the original QL, yet sufficiently new and different so that there was no risk of being accused of copyright issues with the original operating systems. This new version of the operating system for the QXL was called SMSQ and is a forerunner of the SMSQ/E many of us know and use these days.

The name SMSQ stands for Single-user Multi-tasking System for QL (or "for QDOS" systems if you prefer). The /E at the end of the name just stands for 'Extended' system - a posh way of saying that it has Pointer Environment built in - an enhancement to the original operating system to let you use a mouse and an on-screen pointer (usually a little arrow) to control programs, and to allow program windows on screen to overlap without destroying each other's content. The original SMSQ on the QXL did not have this enhancement, just good old keyboard control like an original QL.

Once he had finished SMSQ, Tony Tebby later went on to produce SMSQ/E for various QL and compatible systems, in some cases in conjunction with other people such as Marcel Kilgus.

SMSQ/E is nowadays available for all sorts of QL-compatible systems:

- QL with Gold Card or Super Gold Card
- Atari ST-QL emulator board
- QXL card
- Aurora with Gold Card or Super Gold Card - this version can also be used on recent versions of a QL emulator for the PC, called QemuLator
- Q40 and Q60 computers
- Special version used by the QL emulator for PCs called QPC

It is usually supplied on a floppy disk, suitable for installing on your type of hardware, so before ordering a copy you have to tell the supplier what type of system you intend to use it on. The procedure for installing it varies with the type of system you will be using.

So, your QL or compatible system will now have its operating system stored on a floppy disk or hard disk on your computer. If you are used to having the operating system built in on a ROM chip on your QL, you have to get used to having an operating system on disk now. This means it's easier to update as new versions come out, but also you can delete it or damage it by accident a little more easily than before!

Enhancements And Benefits

Having a new QL operating system is one thing, but before investing in a copy of SMSQ/E you need to know what new features and benefits it offers. I'm sure that Jochen Merz could fill many pages going into detail on what's new and so on, so I'll try to keep it brief and simple!

1. SBASIC

SBASIC is the name given to the improved BASIC interpreter supplied with SMSQ/E. It can do just about everything that SuperBASIC used to on a QL, plus a whole lot more. For one thing, it's generally many times faster than SuperBASIC. Your BASIC programs will run at speeds comparable to or better than compiled BASIC programs used to run on a QDOS system.

Many bugs in the original BASIC have been fixed. SBASIC is generally more reliable than SuperBASIC on original Sinclair QL systems.

Many new commands have been added, including commands equivalent to those you would have been used to with Toolkit 2 on a QL system.

You can also start several SBASIC programs together - on a QL you could only run one SuperBASIC program at a time unless you had something called MultiBASIC on your QL if you had a Minerva version of the QDOS operating system, for example. Each of these SBASIC jobs (as independent SBASIC programs running at the same time are called) can have its own windows on the screen.

You might think that what with all the improvements to and rewriting of SBASIC, it might suffer from the usual computer problems that when you update a computer system, older programs stop working. In fact, the degree of compatibility with older programs is usually very good, the main problems being old programs which use POKE commands to write to the screen display or to the QL system variables, as they may not be in the same place in memory on SMSQ/E systems. But even with those programs there is often a way of working around most such problems!

2. Device Driver Level 3

This rather grand sounding name means that an SMSQ/E system can read a DOS format floppy disk on a PC or QL version of SMSQ/E as well as the usual QDOS and SMSQ/E floppy disks. QDOS and SMSQ/E floppy disks are the same format as each other. On an Atari ST, it can read the Atari's TOS format disks.

SMSQ/E can handle hard disk drives too, but the way in which may vary from system to system. For example, the Atari hard disks may be different to a hard disk connected to a QL with a QUBIDE

interface, which in turn may be different to the format used on Q40 or Q60, and also different to a PC hard disk, known as a QXL.WIN system, which is a single large file on a PC hard disk with all of the QL files contained within it. I am really glad I didn't have to write a system like SMSQ/E to handle so many different systems!

3. Improved Screen Drivers

Many improvements have been made to the display handling in SMSQ/E. Writing to the screen is generally much faster than in QDOS and you get the pointer environment built into SMSQ/E.

If your computer system supports high resolution displays, you can use screen sizes bigger than the original 512x256 pixel QL screen. On a PC, for example, you may be able to use a choice of QL screen sizes, from 512x256 upward. It varies from system to system, but you may be able to get a 640x480 pixel QL display, 800x600, 1024x768 or even higher resolution. On a Q40 or Q60, you may be able to choose between a 512x256 display or a 1024x512 display. On an Aurora system you may be able to get anything from ordinary QL 512x256 pixel displays, up to 1024x768 depending on the type of monitor you have to use with it.

On some systems, you can have new high colour modes as well, although it depends on the hardware and what version of SMSQ/E you use.

On an Aurora with Super Gold Card you can get a version of SMSQ/E which will allow you to use a screen mode giving you up to 256 colours. On QPC2, QXL, Q40 and Q60 you can have up to 65,536 colours using a mode known as 16-bit colour.

The versions of SMSQ/E allowing you to use these new screen modes are described as having the Graphics Device Interface Version 2 (or GD2 for short) built in. Some people also call this 'Graphics Driver 2' or even 'colour drivers'. A "driver" is the piece of software associated with an operating system which lets it talk to and control one of the computer's devices, in this case the graphics system.

4. Other Devices

SMSQ/E has improved software for handling the SER and PAR ports (the serial and parallel port connections on QLs and other computer systems). There are more options available.

It also has named PIPE devices, History device, and a virtual directory device called DEV. These won't mean much to you at this stage, but regular SMSQ/E users will tell you that they are all really useful.

Conclusion

There are far too many new and improved features to even hope to be able to list them all here. Perhaps suffice to say that I have not heard of many people who try SMSQ/E who go back to mostly using QDOS because of disliking SMSQ/E. Perhaps readers would let us know what they think - please write to the editor to express your opinion!