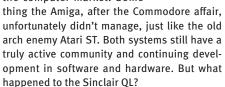
History Special -

SINCLAIR QL – AN OLD RELATIVE

When the Amiga was introduced in 1985 it didn't excite people with just its outstanding multimedia capabilities, but also because of its use of the, at the time, brand new 68000 processor from Motorola. Just like the Apple Macintosh and the Atari ST it was a representative of a new generation of computers. But at that time there was another competitor in this new market: The Sinclair QL. In this special we would like to take a closer look at this relatively unknown competitor.

Don't be afraid, we are not turning Amiga Future into "68000" magazine (who remembers that) and will naturally stay true to the Amiga. But from time to time it's interesting to look a bit beyond the confines of the Amiga and look at other computers with a 68000 processor that competed with the Amiga in the mid 8os. The Apple Macintosh has made it into mainstream by now and is, albeit in a changed form, a fixed factor in the computer market. Some-



ZX83

It's best to start at the beginning. Following his world wide success with the 8-bit home computers ZX80, ZX81 and Sinclair Spectrum, Sir Clive Sinclair (knighted in 1983) wanted to create a new and revolutionary computer that would mainly be targeted at "professional" users, businessmen and small companies. In addition, the device should not only be more powerful but also cheaper than the competitors. The ambitious project started in the late summer of 1982 and spanned some 18 months. A small team consisting of Sir Clive Sinclair himself, Nigel Searle, David Karlin, Tony Tebby (QL-operating system), Jim Westwood, David Southward, Martin Brennan, Rick Dickinson (Design) and Jan Jones (SuperBasic) developed a completely new computer, the Sinclair QL, under the codename ZX82. Interestingly enough, the QL originally should have been a portable device with a built-in LCD monitor and battery. This intention wasn't quite technically feasible at the time and so it was decided to release a desktop computer instead. What stayed, was the compact formfactor: the complete computer is housed, complete with two Microdrive drives, in an elegant black keyboard case that is smaller than most current keyboards.



German Sinclair OL with Monitor and printer

First 68000

When it became known in 1984 that Apple would also introduce a new computer using the 68000 processor some haste was in order because Sir Clive Sinclair really wanted to be the first to introduce a new computer using the then new Motorola processor. This intention succeeded. A whole 12 days before the presentation of the Apple Macintosh the Sinclair QL was introduced at the International Hotel, Hyde Park Corner in London. Together with a powerful Office package from the firm Psion, the built-in SuperBadic and two integrated Microdrive drives the QL was priced just under 400 GBP. Making the QL cheaper than most 8-bit computers on the market but even more powerful. It was priced about 1/6th of the new Apple Macintosh. However, the Sinclair had used the more economical 68008. This had 20 external registers, as opposed to the 24 of the 68000 and a smaller databus. This had the consequence that the 68008 can address a maximum of 1 Megabyte of memory and at the same frequency is slower than a 68000 processor. Internally however the Sinclair QL works with 32-bit as well and is fully compatible with its big brother.

Quantum leap

By the way, the "QL" stand for "Quantum Leap". This somewhat immodest attribue has some iustification however because the Sinclair QL really offered in 1984 (one year before the launch of the Amiga) some revolutionary features.

Links

RWAP Software:

http://www.rwapsoftware.co.uk/index.html TF Services: http://tfs.firshman.co.uk/ql/

Jochen Merz/QL Today:

http://www.j-m-s.com/smsq/index.htm

Q60: http://www.q4o.de/ **QPC:** http://www.kilgus.net/

QDT: http://www.jdh-stech.com/QDT/qdt.html Launchpad: http://www.dilwyn.me.uk/gen/

launchpad/launchpad.html

Quanta: http://www.quanta.org.uk/

QL on the Amiga:

http://www.mswift.unisonplus.net/ql/index.html http://www.dilwyn.me.uk/emu/index.html

QL/Mac event

http://www.qlvsjaguar.homepage.bluewin.ch/ index_no_frames.html



Sir Clive Sinclair with Sinclair QL at the launch in 1984

It wasn't only the first 32bit-microcomputer with a Motorola 68xxx processor on the market but also offered a powerful operating system with pre-emptive multitasking. "Qdos", developed by Tony Tebby, was stored completely in ROM just like the SuperBasic programing language, that featured powerful functions like recursive procedures. Another interesting feature is the integrated network "QLAN", which could network up to 63 QLs in a very simple manner. Another in-house development of Sinclair were the dual built-in MicroDrive drives. The Microdrive cartridges that came with it are about the size of a Compact Flash card and were in principle mini tape cassettes with about 5 metres of continuous tape that the drive could wind through in about 7 seconds. Up to 110 kB of data could be stored on the very compact media. The graphics and sound capabilities are, compared to the Amiga that appeared a year later, not spectacular (512x512 in 4 colors, 256x256 in 8 colors, beeper), but the QL was designed as a business computer and thus a direct competitor to IBM and Apple Macintosh. The Apple Macintosh at that time offered for example only monochrome graphics with 512x342 pixels

Bad Karma

Although the QL was a very interesting computer with a sensational price/performance rate (an original IBM computer with similar performance cost almost 10 times as much at the time), the success that was hoped for by Sinclair didn't come. Even the launch was unfortunate and badly prepared: to be able to introduce the QL before the Apple Macintosh they went public with a half finished device. Sinclair promised however to start shipping the QL 28 days after the launch, but in truth those who pre-ordered the computer had to wait for months. Also, it took another few months before all the major bugs were ironed out of the operating system. The first devices shipped were error prone because of that and were accordingly badly reviewed by the press.

The later units did convince however, but the image of the QL was already damaged.

Another stumbling block was the built-in Microdrives. These were better than their reputation gives them credit for, but couldn't compete with the then new 3.5 inch floppy drives in either storage capacity or speed (and unfortunately also not in reliability), that were used in the Apple Macintosh and later in the Amiga and Atari ST. There were soon appropriate controllers and drives offered by third parties for the QL but these had to be bought in addition for relatively large sums of money and negated the low selling price. An additional shortcoming was the missing graphical user interface. Qdos was more powerful than the contemporary MacOS of the Macintosh, but was operated by keyboard like other computers of that time. Starting with the Atari ST and the Amiga, a GUI operated by mouse became a ,must have' in modern computer systems. The problem was recognized by Sinclair as well and resulted in negotiations with Digital Research with the goal of supplying the QL off-the-shelf with GEM. Unfortunately the negotiations failed and the firm Sinclair went downhill in general. Sir Clive Sinclair had used up considerable financial reserves in the development of an electric vehicle, the C₅. Although the QL was awarded "Microcomputer of the Year" in 1985 in Great Britain and had gathered a small but loyal community there was barely any money left for marketing and promoting the computer. The anticipated successor of the QL didn't materialise. After the C5 had proved to be a major flop Sir Clive Sinclair was forced to sell his business including all rights to the Sinclair computer to rival Amstrad. Amstrad did successfully put out the 8-bit computer again but let the QL die without any comment because it didn't fit in the program. In the short lifespan of the computer (1984-1986) only between 140,000 and 150,000 Qls were sold worldwide.



The Sinclair QL was, at its introduction, ahead of its time, but thanks to bad timing and several other bad corporate decisions from Sinclair, couldn't pull through. Something that we know well in context to our own favourite computer: the Amiga was, even more than the QL, ahead of its time but suffered from bad marketing, resulting in it not having the spot in the computer world that it should have gained.

Life after death

Similar to the Amiga, committed peripheral firms made sure that the Sinclair lived on after its discontinuation. In addition to the previously mentioned floppy controllers and several other peripherals, there were two Amiga-like "accelerator cards" for the QL: The Goldcard (68000 at 16 Mhz, 2Mb RAM) and the SuperGoldCard (68020 at 24 Mhz and 4 Mb RAM). The QL operating system was further developed by Tony Tebben (and later by others) up to today and is currently named SMSQ/E.

Even several QL successors came on the market, like the "Thor" from CST. The latest and most powerful QL successor is the Q6o. A completely newly developed computer with a fast 68o6o processor (up to 8o Mhz) and further developed graphics and sound capabilities. The computer became available in 1999 and was developed by Dipl.-Ing. Peter Graf from Germany. (Manufacturing and Sales: D&D Systems/ Great Britain). An inquiry with D&D systems resulted in the news that production of the Q6o hasn't ended but the machine is in principal only built when enough orders are made for a minimum production run.

QL Today

Even today the QL scene remains very active but is by now too small for commercial projects. Despite that, there are still QL enthusiasts that function as dealer and/or publisher, like the British QL-dealer RWAP Software or Jochen Merz from Germany who not only deals in diverse QL software products but also publishes the QL magazine "QL Today". In Great Britain "Quanta" is the worlds largest QL user group that publishes its own QL-magazine as well. The currently most used and most powerful QL platform is the commercially traded QPC. The "virtual QL" programmed by Marcel Kilgus, consists of a 68k emulator and a specially adapted version of SMSQ/E and runs under Windows on any modern Intel hardware. Graphical user interfaces are available for the QL and the diverse QL successors as well: from "Launchpad" from Dilwyn Jones, which runs on older QLs as well, to QDT, an extravagant graphical interface for hi-end QL systems, programmed by former Apple employee James D. Hutkins. QL events are organized as well, recently an international meeting for the 25th anniversary of QL and Apple Macintosh in Switzerland. At the event, organized by Urs Konig, yours truly was also present, demonstrating Amiga OS4.1 on his microAOne to an interested public. Apropos Amiga: Those who would like to test Qdos for themselves are recommended to try out both QL emulators, QDosClassic and QDOS4Amiga for 68k-Amigas (see link list).

In conclusion two more interesting remarks about the Sinclair QL:

- 1) Linus Torvalds was a QL user in the 8os and honed his programming skills on it before he programmed Linux and wrote his name into computing history.
- 2) The very well known and liked adventure "The Pawn" was originally developed on the QL (as a pure text adventure) and only later ported to other computer systems.

Anton Preinsack / Richard Mulder Image source: Urs König