

A message from our commercial director, Sam Wauchope

During the third quarter of 1988 the company has built firmly upon the encouraging levels of achievement attained during the first half of the year.

Sales revenue continues to show an improvement over 1987, with main-stream products in particular making a significant contribution to higher margin achievements. The very strong demand for Master Series computers has not slowed, while the Archimedes range continues its market penetration.

Close controls over the company's cost base have also contributed substantially to the overall budgetary achievements.

However, our efforts to maintain the momentum need to be even more rigorous during the last two months of the year. Every single person in the company has an important role to play in ensuring that Acorn's year-to-date achievements blossom into the full-year results. Please don't lean back in your chair and congratulate yourself — at least, not yet.



PCS through the eyes of . . . Roger Wilson

'I spent most of my time at the Personal Computer Show on the Acorn stand, demonstrating RISC OS to individual visitors until the time came to give another full-blown presentation to the masses. I gave two presentations every day, except on those days when I gave three. This duty was sprung on me rather unexpectedly — I wondered why everyone looked guilty as soon as I appeared. Luckily I've demonstrated RISC OS a lot by now, so I can produce a convincing show as I go along.

'These presentations were always well attended; all the seats were full and there were sometimes people standing five-deep in the gangway. My perennial problem is to fit all that I want to say into the given time without missing out anything vital. At PCS I wanted to show the audience how marvellous the new operating system is, while surreptitiously fuelling their expectations that the price would be high. Then my closing message, that it will cost only £29 to install this unbeatable system into their Archimedes

computers, hit them like a thunderbolt.

Representatives from all the big computing companies visited the stand and asked questions about the operating system. The highlight was when a group arrived from Computer Concepts to ask whether the upgraded Archimedes System could do a whole list of different things. It gave me great satisfaction that I could truthfully answer 'Yes' to every one of them.

'I was also approached by representatives from the software houses, who came armed with a disc to make sure their programs would run under RISC OS. There were few that didn't and we could always tell the author why there was a problem. For example, Dabs Press had protected Alerion by using the RETURN addresses in the old operating system. I promised the programmer that an unprotected version of the program would run, and sure enough, it did.

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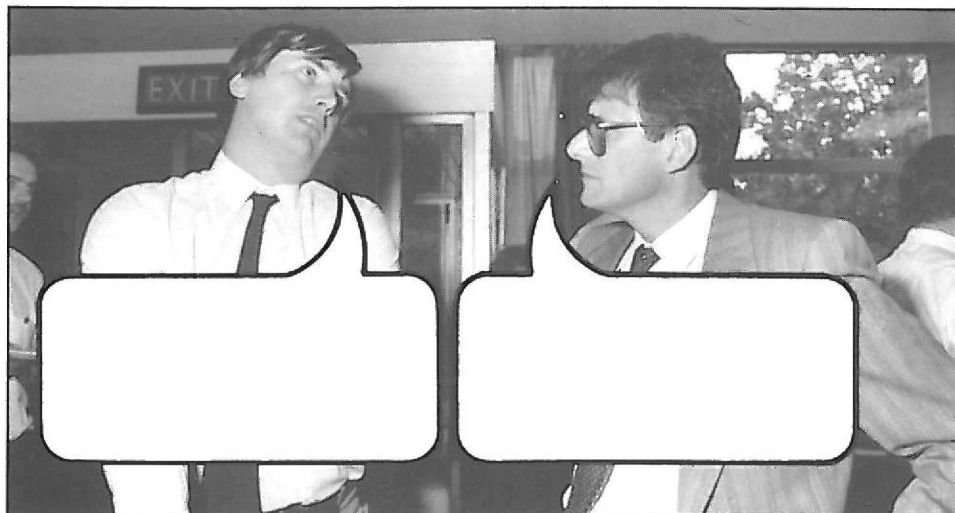
'We know what we're doing
and we're good at what we do'

Snaps & Snippets

Acorn 
The choice of experience.

Caption competition

What has Harvey just said to Ian to provoke this 'ear to the ceiling' reaction? And what is Ian going to say (or do) in reply? The best suggestion will win this month's mystery prize.



Send completed balloons to Chris Seaman in the Personnel Department.

New names, new faces

We welcome the following people who have joined Acorn since the last issue of the newsletter:

Name	Department	Job title
Edward Nevill	AR&D	Programmer
Eimear Couse	Personnel	Secretary
Noel Hiles	AR&D	Programmer
Kevin Welton	Unix Kernel	Programmer
Lucy Davies	Manufacturing	Secretary
Steven Cormie	Unix Graphics	Programmer
Warwick Hirst	Marketing	Industry Marketing Manager
Troy Ackerman	Customer Services	GRA and Refurbishment Coordinator
Katherine Pierpoint	Corporate Communications	Corporate Communications Coordinator
Frank Burdett	Marketing	Tertiary Education Adviser
Angela Girling	Projects and Planning	Secretary

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'The question I was asked most frequently was "If RISC OS is really finished, why do I have to wait until April for it?" I got quite tired of explaining that not only does it take nearly six months to make a ROM in Japan, but we also want to give third-party developers enough time to plan their new packages. One man, to whom I'd given a 15-minute demo, sat on the steps at the edge of the stand for the next two hours, watching while I showed off RISC OS's paces to the never-ending stream of people. He then said with a sigh: "I've just spent thousands on an Amiga system, but this beats it hollow." He left the show a broken man.

'I saw very little else at PCS, apart from the displays between the Acorn stand and our hospitality suite as I rushed over for lunch at about 4 o'clock. I did spend 20 minutes early one morning hunting for a surreal fantasy game that William Stoye

recommended as the only innovative game at the Show, but it wasn't to be found.'



Acorn Risc Machine Version 3 — the fastest yet

The specification for Acorn's latest ARM chip, codenamed ARM3, has been sent to VLSI Technology in America where the first prototype chips will be produced. ARM3 differs from ARM2 in that it has its own local memory, called cache memory. Information from the computer's main memory is copied into this cache memory, where it can be reached much more quickly.

There are over 300,000 transistors (electronic units) on ARM3, each about 1.5 microns wide. Since a micron is one thousandth of a millimetre, it is difficult to imagine just how small each is. This intricate design gives ARM3 the largest on-chip cache memory of the crop of microprocessors currently being produced all over the world. It holds the maximum memory compatible with an economic chip.

VLSI designers Jamie Urquart, Harry Oldham and Dave Howard, with systems designer Alasdair Thomas, used the ARM2 microprocessor in their Archimedes computers to design its successor (ARM and ARM2 were themselves designed on a BBC micro), and check their designs on the in-house simulator. This leap-frog method of production demonstrates the power of the Archimedes system, and the faith the team has in their own creation. It is a fairly unusual approach — Apple, for example, is said to use a Cray supercomputer to design its new machines, while Cray is reputed to use an Apple Macintosh in the design of its next generation!

The team is very keen on reviewing each other's work at frequent intervals, to make sure that every section of the design really does what it is supposed to do. Unlike software designers, who can find the bugs in a program by running it whenever they want to, chip designers only know for sure that their creation works after they have tested the prototype.

When the design of ARM3 was completed to the team's satisfaction, the mask data (a 'floor plan' of the chip) was sent on tape to VLSI Technology. Prototypes should be back in the office in time for Christmas. If all goes well they will be the best Christmas present that Alasdair, Jamie, Harry and Dave will have had for a long time.

'We know what we're doing and we're good at what we do'

The warehouse has changed substantially since the first goods arrived at the 20,000 sq ft empty shell in May 1986. It now has blue racks running the length of the building, efficient heaters, three fork-lift trucks, boxes piled up to the ceiling, and nine full-time members of staff. The success of its operation depends, as Sandy Boyd explains, on 'common or garden team effort. Luckily we usually all pull in the same direction.'

The orders to be sent off each day are collated into a long list — sometimes it's a very long list — by the computer system and one member of the team picks every item off the shelves. The lads all pride themselves on getting the numbers right every time, but even so, the work has to be checked by someone else. 'Everybody gets to know about it on those rare occasions that the list doesn't tally with the pile on the floor.'

Next the goods are sorted into the different orders, packed into boxes and loaded on the lorries. 'Our reputation with our customers depends on our ability to get things right consistently. Since we put in the new computer system in January, we have always caught up with any anomalies, though sometimes by the skin of our teeth. I have once had to stop a lorry as it left the warehouse and unpacked every single carton on it to find a misplaced component.'

All nine of the warehouse staff are prepared to get on with whatever needs doing next, though they are less than enthusiastic about the stocktake at the beginning of year. Graham even went so far as to schedule the birth of his baby for the beginning of January, so that he had a

cast-iron excuse to miss the event this year.

Surrounded by private jokes, boxes and cigarette smoke, their distance from the rest of the company has its advantages: 'We know that by the time a rumour reaches us here, it must be true'.



Snaps & Snippets

What some people will do to see RISC OS in action . .

Intrepid Alastair Cormack braved a 48-hour round trip for the sake of the Acorn Advisers' meeting in York. He left the Orkney Isles at 10 o'clock on Tuesday morning in an 18-seater plane, heading for Edinburgh Airport. He then enjoyed the comparative luxury of an Intercity 125 as he travelled on to York, where he stayed the night. After the day-long session in the Crest Hotel he caught the train straight back to Edinburgh, and flew in to Orkney the following morning.

Alastair says that he thought the meeting was well worth the journey.

Helping those in need

Over the past few months Acorn has made small donations from its charity budget to The Centre for Safety Research in Bournemouth; to the Disabled Living

Foundation; to Green Hedges Special School who were taking a party of pupils on a visit to a special school in Germany; to the Hartcliffe Children's Holiday Appeal which organises holidays for disadvantaged children; to DEMAND (Design and Manufacture for Disability); and to the Ditton Fields Community Association. We have also sponsored an award for Excellence in Information Technology at Harlow College, Essex, and contributed towards the costs of the Community Computing Network Conference organised by Falkirk and District Voluntary Action Resource Centre.

A contribution was also made to the 57th Cambridge (Fulbourn) Scout Group as a 'thank you' to the Cubs who helped hand out hats and balloons on the Acorn Stand during the long, hot carnival fair in the summer.

Master runs a robotic arm

A robotic workstation for the severely physically disabled, based round a BBC Master and an Atlas manipulator, is being developed at the Bath Institute of Medical Engineering. It is intended to help people with little or no hand movement to perform simple, though necessary, operations such as drinking from a mug, or loading a cassette into a cassette

player. The computer takes input from the user and controls the robot; it can also be used for wordprocessing and other applications. The robot is currently being modified in the light of its preliminary trials; it will soon be installed at the Spinal Unit of Odstock Hospital for longer-term assessment.

Not known at this address

Mr Alan Sugar
Acorn Computers
Fulbourn Road
Cambridge

Dear Mr Sugar

I am writing to ask if you would be willing to support a venture of mine . . .

Acorn will be at . . .

Interactive '88 — a conference on interactive media at the Brighton Metropole from 6-8 December.

BETT — the British Education and Training Technology Show at the Barbican, London, from 18-22 January.

Which Computer? Show at the National Exhibition Centre, from 21-24 February.

. . . and many local conferences and dealer events.

Quality at work wins customers and friends

In a recent informal interview, Harvey Coleman spoke to the Editor of your Staff Newsletter about his impressions of working processes within the company, and his proposed Quality Programme.

ED: The company looks as if it might be back on a path to success. What do you think is the next major issue to be tackled?

HC: Despite the tremendously hard work I see all around, I have been seriously concerned by the level of complaints from our customers – about everything from the way we answer the phone, actions taken (or rather, not taken) by our dealers, the degree of completion of our products – and, more generally, by our failures to deliver what we have promised. Customers and end users have to be the most important people to impress, since without them we could not continue.

ED: Why do you think Acorn is attracting these complaints?

HC: I think it stems from our self-indulgent attitude to our work, and it is an attitude that is very common among young, hi-tech companies. We are all keen to spend our time on the exciting aspects of our jobs but are not so enthusiastic about tying up the loose ends. There is no point in working on a brilliant project (and many of the projects initiated here really are brilliant) if

the product is not going to be properly finished off. That last 10% of the work, although probably the most boring part of the job, is the fraction that prepares the product for the marketplace, the fraction that turns a working prototype into a saleable commodity, and the fraction that makes the difference between a loss and a profit. I want to make us all, me included, aware of that last 10%.

ED: How will you achieve this change in attitude?

HC: I am working on the design of a Quality Programme that will steer people towards a consciousness of this last step. If we pay just that little bit more attention to detail, our customers will soon appreciate the dramatic improvement it has on our products. But a quality programme can only have an effect if every member of staff is committed to it – one weak link can undo everybody else's good work. The Quality Programme will also help the whole workforce to pull as a team instead of beavering away in their own little capsule, unaware of what is going on in surrounding groups.

ED: Can you give me an example of a quality issue?

HC: Surely. Suppose that, while someone is away from his desk for a short time, his phone rings. After leaving it to ring for a while the chap at the next desk gets up and answers the call. He promises that his colleague will call straight back, scribbles the message on a scrap of paper and leaves it on top of a pile of papers. There the note either isn't spotted by the person it is intended for, or it's ignored. Whichever, it is certainly soon buried. Two days later the caller tries again, but this time he feels aggressive because the person he was trying to contact has not phoned back. The matter for him is now urgent, and he feels let down. When he gets through he has to be soothed before the business can be attended to. And since by now whatever it is has to be done quickly, it takes up more of the Acorn employee's time and energy.

The Quality Programme will raise our awareness of details such as these, to make sure that even the smallest tasks are done in the best possible way, in a way that is helpful to all concerned. Initially it may seem to take up more of our scarce minutes, but it can only save time in the long run, and that's the trick about quality. It actually costs very little, often nothing, but in return it buys a great deal.

I believe that this new attitude to our work – the perception that the whole company should function as a team and that the success of the company team is more important than the feats of the individual – will harness everyone's tremendous willingness to work extremely hard and so turn our latest good results into real and sustained success.

Thoughts on the new smoking proposals

In response to several suggestions that it received through the Comment Scheme, the Personnel Department has composed a set of recommendations, based on staff members' ideas, to restrict smoking on company premises. I asked a random sample of Acorn personnel for their response to the new proposals.

Mike Challis, cigar smoker: 'I'd like the company to be completely non-smoking. It'd stop me smoking in office hours and help me get a lot fitter.'



Mike Challis



Kate Mitchell, cigarette smoker: 'The proposals are fine, as long as you have an office of your own. I work in an open plan office, and the 14 non-smokers I share it with don't mind me smoking. But if I had

to leave my desk whenever I wanted a cigarette, they'd get fed up with answering my phone. If anybody would like to put me in an office of my own, I'd be very happy. I'd get more work done, too.'

Graham Dunn, cigarette smoker: 'The proposals don't really affect us here in the warehouse since the one person who doesn't smoke says he doesn't mind that the rest of us do.'



Graham Dunn



Dave Lamkin, non-smoker: 'I'm very pleased that Personnel have made a start in tackling the issue of smoking on company premises. But I don't think the proposals have gone far enough. For a start, they discriminate against people who don't sit in an office. Smokers sitting

in an open-plan area don't have the option to smoke at their desks. Secondly, I don't think that the majority should be able to decide whether smoking is allowed in a meeting. Instead, everyone should have the power of veto so that if one person doesn't want to sit in a smoky atmosphere, there should be no smoking. Thirdly, the proposals do not give clear guidance on whether visitors are exempt from the ban.

Bruce Cockburn, non-smoker: 'I think the non-smoking rule should be extended to every member of staff in every corner of the company. Then I'd have anyone who refused to put out a cigarette sacked on the spot.'

Jim Merriman, cigarette smoker: 'No comment.'



Jim Merriman

