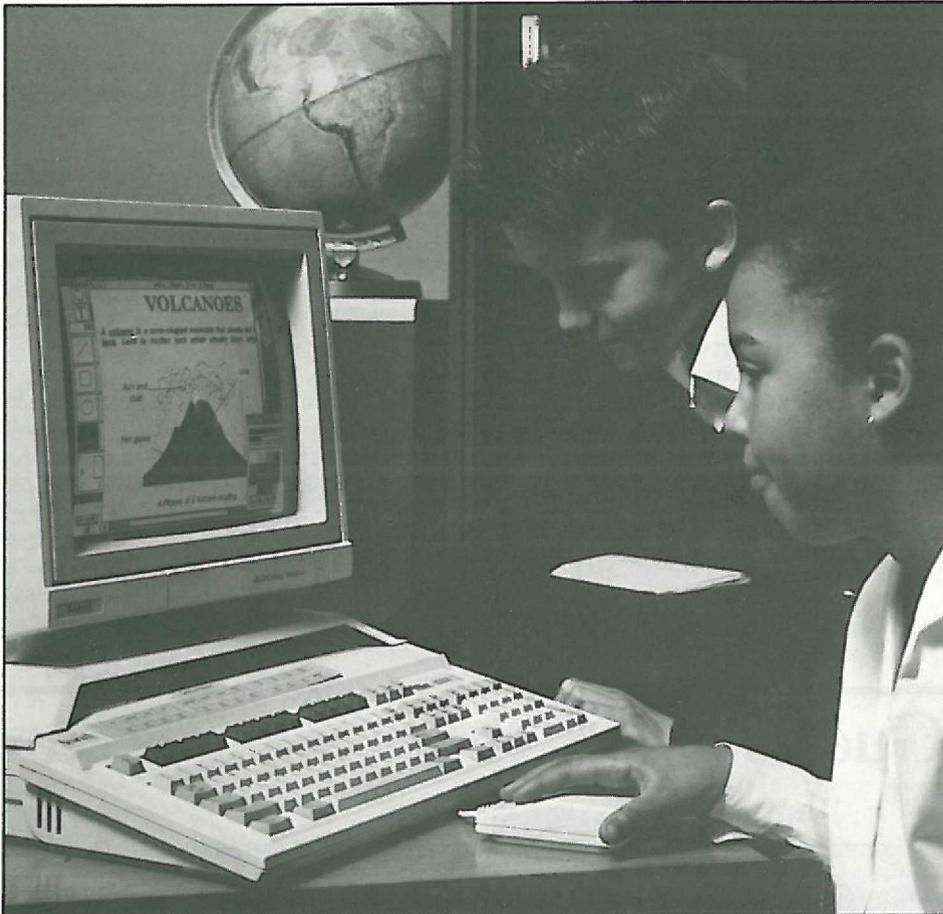


Three thousand cheers for the A3000



The Acorn A3000 has emerged from the mists of the North Weald and the fast-flowing Avon as a fully-fledged BBC microcomputer, complete with distinctive red function keys and the new BBC logo. Its closed-box design hides the Acorn RISC processor and incorporates a floppy drive. This is the first major Acorn product to have its printed circuit board designed on the Valid CAD system.

The efficiently packaged A3000 was developed in the remarkably short timescale of nine months. Despite its power, it is smaller than both the Archimedes 300 and 400 Series and the Master 128. The new product offers all the performance of the 400/1 Series with 1 Mbyte RAM, upgradeable to 2 Mbyte.

Group Product Manager David Bell said of the new machine, 'The A3000 has

been produced to deliver Acorn's world-beating low-cost, 32-bit technology in a product suitable for both schools and the home. The combination of RISC OS and the re-engineered hardware provides our customers with a product whose price/performance ratio leaves our competitors standing. The A3000's low retail price of £649 + VAT, together with special educational pricing, makes the computer attractive to schools at all levels. Acorn's Archimedes Series, from the A3000 through to the 440/1, provides a complete range of 32-bit machines suitable for the budget-constrained primary schools, through to the demanding professional user.'

The computer will be on show (and on sale) to the general public amidst a riot of colour and razzamatazz, at the BBC Acorn User Show at Alexandra Palace on 21 July.

Valid investment pays off on the A3000

After many long hours of hard work, the A3000 system was assembled in the laboratory in April. To the jubilation of the onlookers, it fired up first time.

The Valid CAD system used to design the A3000's printed circuit board was chosen from a short-list of three after intensive benchmark testing and much discussion. Peter Dawson, Information Systems Manager, is confident that Acorn has made the right choice. 'The system can cope admirably with today's designs, and can handle all board and design technologies that Acorn is likely to use in the foreseeable future.'

The most significant benefit of an integrated CAD system is that there is little room to introduce errors once the electrical diagram is complete. Once Richard King, the A3000's electronic engineer, had completed the schematic he passed the file of data straight down to the drawing office. There Tom McNamara, leaving Röttring pens to one side, completed the design by tucking all the components neatly into the available space. Many calculated risks were taken on this important project, and it has been an outstanding achievement to produce such a complex board in the allotted time. Peter brings in a word of caution: 'In order to ensure that we continue to produce such high-quality products in future, we have to make sure that the appropriate quality checks and design time are allowed for in all design phases.'

Tom is sure he couldn't have completed the board design on schedule without the CAD system. 'Because I don't have to worry so much about checking that I haven't missed anything out, I have more time to make sure the components are in the best possible position. The CAD system really enhances my design. It also allows the circuit designer and the PCB designer to work together and share their knowledge.'

Since the A3000 board was so important, a precautionary manual check lasting 3
continued on p. 2.

Acorn 
The choice of experience.

The Quality Edge Process steams ahead

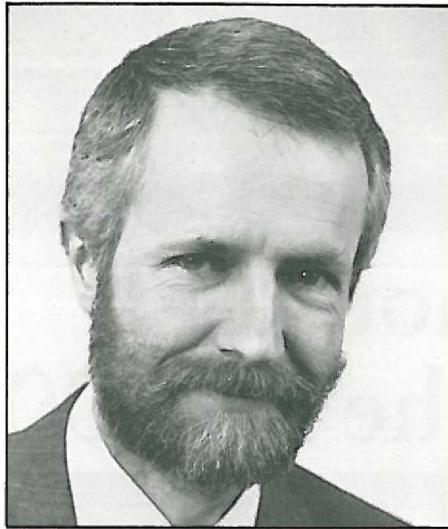
Thank you to all of you who have completed and returned your Organisational Climate Survey forms.

Some people added extra comments at the end of the form. These give relevant information or make suggestions about how things could be improved. Others passed up this opportunity to say something about the company and their jobs, confining themselves to criticism of the questionnaire.

You can see these two different approaches in action during work meetings too. Some people will pull a flawed argument to pieces; others will try to build where possible. We call this the 'that won't work because' style and the 'that could work if' style. The Quality Edge Process will try and encourage the latter form of interaction.

To show how dangerous it is to snipe we need do no more than cite the person who complained about a 'gramattical' [sic] error in the explanatory letter. Much more helpful was the person who ran a mini-control on the reliability of the questionnaire by completing it again after an interval. He was pleased to be able to report that most items prompted the same response on both occasions!

Other comments provided clear, practical insights into 'job-stoppers' – aspects of working life that make it difficult for people to produce quality work. In many cases these were followed by suggestions



Management Consultant John Hammond for removing the problem and creating the better working environment. Poetry!

Here are just some of the areas that people feel would benefit from some problem-solving effort in the Quality Edge process:

- improving the communication and cooperation between departments;
- appreciating the need to pull together, company-wide, as a team;
- improving the information flow within the company, especially where the news will affect a person's work;
- understanding how different departments achieve their objectives;
- clarifying the interrelationships between departments;
- understanding the overall goals of the company;

- gaining a perspective on the world outside Acorn: customers, competitors, suppliers and partners;
- accessibility of senior management,
- support, encouragement and leadership from senior management;
- the value put on customer care and service to the customer;
- analysing mistakes and learning from them.

The Process is now reaching the phase when people will meet in functional groups and discuss quality issues, as well as receiving some informal training. Each group will be headed by its manager, and management consultant John Hammond will sit in as a facilitator.

During these sessions people will acquire the skills on which the total quality campaign is based. They will find out how to serve their 'customers' better, and will explore means of improving quality by taking part in problem-solving exercises. Participants will also have plenty of opportunity (and every encouragement) to make suggestions and bring their knowledge and experience to bear on the Quality Edge.

After the initial Quality Edge session for the directors Ian Laurence commented, 'Unlike many management tools, quality is something that affects everything one does, both at work and outside. As such it is easy to recognise accessible targets and constructively to consider how to achieve them. On the way home from the session I found that the quality of my driving had improved already.'

Valid investment pays off on the A3000 *continued from front page.*

days, one fifth of the time spent checking the A400 Series board for consistency errors, was made to ensure that the PCB did, in fact, exactly match the schematic.

To make the most of the CAD system, the users must follow strict disciplines and procedures. Designing the A3000 board has been the major learning vehicle on the system, and has enabled the design team to evolve and agree the necessary procedures which will be formally in place by the summer. As Richard King explains, 'The A3000 board proved that the Valid system works, and identified the procedures and disciplines users need to have before they start work.' The engineers spent a significant amount of time building library components; once the time devoted to creating the library is minimised, they will be able to devote more time to design work.

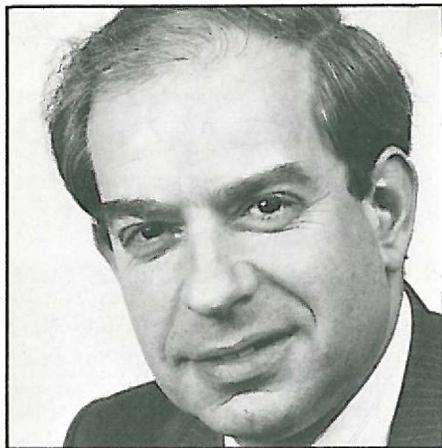
Peter Dawson would like to pay particular tribute to the users of the CAD system: Richard King, Tom McNamara, Colin Walters, Barry Hawkins, Steve Arnold, Ian Nicholas, Peter Watkinson and Graham MacFarlane.

Guests of the Managing Director



A dozen Acorn staff sat down to lunch with Harvey Coleman on Monday 17 April. Over lasagne and baked potatoes they introduced themselves to the other guests and described their job functions. As the meal progressed the talk became less formal, with Harvey answering questions from all sides and encouraging general debate. The longer the session lasted the more courage people found to ask

Comdex marks the path for the computer industry



David Bell has just returned from Comdex, the world's leading show for the computer industry, held this year in Chicago. Here David reports on his visit.

'I went to look at the latest products that are on offer to the US trade – the products that dealers are ordering now to sell to the US public later in the year. They give a fair indication of current trends in the industry. Although UK companies hardly have a look-in in the States, most of our competitors over here are US-based, and so I saw clearly what Acorn must be able to compete against.

The biggest growth area will be multimedia devices – offering a mix of text, graphics, animation, audio and video facilities. They use all the new technologies, such as laservision, video discs and CD-ROM players, and interact with computers to provide a vast information

direct questions; time eventually had to be called before the whole of the afternoon slipped away.

For Richard King the lunch offered the chance to chat with the MD, whom he doesn't often meet in the course of his job. 'It's great that Harvey has found an informal route to meet us all,' he commented. Richard also welcomed the opportunity to match jobs to faces. Andrew Clarke has spent 5 years working in Acorn's accounts department so he already knows most of the company's employees by name. 'The talk was very interesting, particularly the details Harvey gave about current developments. I learnt a lot about where the company is going.' Theresa Downey was most interested to hear what AR&D were doing, 'especially Jon Thackray who has worked on the operating systems of all Acorn products from the Electron on.'

These company lunches will be repeated at regular intervals so that everyone in Acorn has a chance to meet Harvey and other members of staff with whom they would rarely have contact in their working day.

resource. Analysts expect that within the next three to five years most homes and schools will have their own multi-media system. Our own Domesday machine was one of the first products in this area to merge data and video, and Acorn intends to maintain its presence in this market.

The new buzz-word is GUI (pronounced gooey), short for graphical user interface, and known on this side of the Atlantic as a WIMP environment. RISC OS is one example of a GUI. Another is Hewlett-Packard's New Wave, seen in the US as a major step forward. IBM spoke on their GUI, Presentation Manager, which runs with OS/2 and was developed in the UK. Presentation Manager's current specification is inferior to RISC OS, but the IBM spokesman promised that further enhancements are in the pipeline. We must continue RISC OS development if we want to maintain our lead.

The show confirmed that RISC OS is developing in the right direction, and that our analysis of multi-tasking needs is on the right lines – as we envisaged, the user is likely to use lots of small applications at once, rather than one large application alone.

I didn't see many new key products in the exhibition halls. Intel was demonstrating its 486 processor chip: it runs two-and-a-half times faster than the 386 and will be included in at least one product by the end of the year. Three Japanese companies were showing colour LCD displays up to 14 inches across, proving that the flat-screen TV is not far away. Although UNIX machines did not appear that often on stands, UNIX is used by more people than is generally supposed: a show of hands by current UNIX users during one of the conference sessions surprised the speaker by their number.

My visit to Comdex was extremely encouraging since it confirmed that Acorn is moving in the right direction. It has also provided an informed environment for consolidating our plans for the next few years.'

Negotiate the obstacles in your job

Have you noticed that your manager has become more approachable, keener to discuss an issue without taking an immovable stance? It could be because he or she was one of ten Acorn employees who recently attended a two-day course on negotiating skills.

The participants were chosen because, although they do not actively sell, they do have to negotiate with people inside and outside the company. Frank Burdett summed up their attitude at the start: 'We were all frightened of negotiating. It's a skill we tend to associate only with selling and financial transactions.'

After discussing the problems each had with negotiating in the course of their work, the ten watched and analysed a series of videos showing various different levels of negotiation. Then the fun started as they embarked on role-playing exercises to put what they had learned into practice. In one William Stoye acted as a ruthless manager, trying to persuade his staff to move into open plan offices. 'I hate open plan offices, so I had every sympathy with their arguments.' According to William, the first run-through ended up as a shouting match. 'To start with there was complete deadlock. But gradually we understood what was going on, and managed to agree on a settlement.'

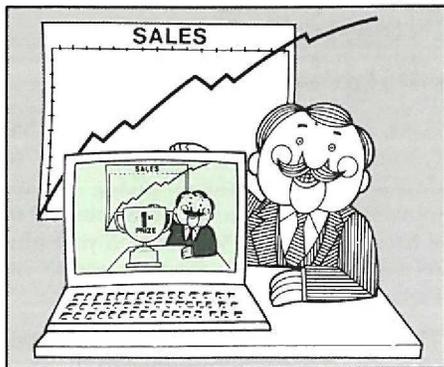
Katherine Abell had expected to come away from the course with some strong directives – guidelines on how to conduct a negotiation and a bank of techniques to draw on. 'Instead I found out that there are no rules. You have to learn as you go along. The trick is to prepare yourself well in advance. You soon realise that misjudging the other person's position can be disastrous.'

The course has made William aware of negotiating as a way of thought. 'I don't really need to negotiate in my job, but when I tell Planning how long a job will take I realise that they think I am taking a negotiating stance.'

New names, new faces

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

Name	Department	Job Title
Jonathan Coxhead	Software	Senior Programmer
Jonathan Roach	Software	Programmer
Simon Abbot	Quality Manufacturing and Operations	Quality Control Engineer
Andy Booker	Manufacturing	Storeman
Veronica Cox	Manufacturing	Purchasing Assistant
Tina Davies	Personnel	Secretary



Acorn announces 'We're back in the black'

Acorn's operating profit for 1988 was £1.6m, a welcome turnaround from the previous year's £2.4m loss. Total turnover increased by 8.6%, up to £39.2m from £36.1m, with turnover in the company's mainstream business up by 16%. The net cash inflow of £7.1m enabled the company to pay off its overdraft.

Harvey Coleman announced these encouraging results in three sessions at the World Trade Centre, near the Tower of London. Stock-brokers' analysts, financial journalists and the trade and technical press could then ask Sam Wauchope to supply the commercial details. Archimedes and R140 computers

were on show, with David Tee and Jeremy Newman on hand to explain any technical points.

Michael Page finds the annual announcement of results has him in a whirl of activity. 'We can never be certain of the date of the announcement until one month beforehand. This leaves me a very short time to find a suitable venue. It has to be near the City so that the analysts can get to it easily, it mustn't be too far for the journalists to pop in, and it should be large enough to hold an unknown number of people. This year's event was not as well attended as previous years because the government held a press conference on the same day to announce that Fujitsu would be building its new plant in Durham.

'The news release that carries our results must be kept strictly confidential until the day of the announcement. It has to be cleared by our stockbrokers, merchant bankers and auditors, the corporate solicitor, and of course the Board before it can be printed. I spend the week beforehand hiding pieces of paper among the piles on my desk whenever anyone comes into my office. It's no wonder that I have to have a good clear out as soon as it's all over.'

Anonymous comment from finance: 'Absolutely the most feeble excuse I have heard yet for the state of Michael's desk.'

He flies through the air with the greatest of ease



Anyone fancy a quick hop over to France for the day? Jon Thackray, pilot and aerobatic specialist, is hoping to repeat last year's successful day-trip, perhaps this time flying further than the 170 miles from Northampton to Le Touquet. There is just one drawback: his intrepid passengers must be prepared to pay their share of the plane-hire charges.

Jon earned his wings in June 1987, and is now licensed to fly single-engine planes. He then gained extensions which allow him to fly in poor visibility - through cloud, fog and rain - and at night, to make him, he says, 'a safer and more competent pilot'.

At the end of his first-ever flying lesson, Jon's instructor asked him if he fancied

doing some aerobatics. Always game to try, Jon said 'Yes' and was immediately taken into a double loop followed by a half Cuban eight. He hated them. 'It was far worse than the scariest fairground ride.' But six months later, as he neared the end of his course, a different instructor guided him through a roll with step-by-step instructions. This time he thought 'It's great', and he's been learning how to do loop-the-loops, spins and victory rolls ever since. 'To start with, hanging upside down in the straps feels unpleasant, but it gets easier as your body builds up a tolerance to the g-forces.'

For all those who would like to follow in his flight path, Jon has this advice: 'Don't start learning to fly unless you know you have the cash to see you through.'

Snaps & Snippets

The Archimedes 400 Series: the fastest yet

The three new models in the Archimedes 400 Series are the 410/1, the 420/1 with internal 20 Mbyte hard disc and 2 Mbyte RAM, and the 440/1 with a fast-access 50 Mbyte hard disc and 4 Mbyte RAM. The speed of the Archimedes computer has been increased by 10%, and RISC OS delivers the full processing power of the machine. All models have a four-slot expansion backplane and a fan so that they can be upgraded with ease. Other standard hardware features include built-in graphics controllers, the circuitry for a hard disc controller, and the coprocessor bus.

Scouts win the cup from Katherine

Katherine Pierpoint impartially cheered both teams of Cub Scouts as they battled for the Acorn Cup on the Hauxton football pitch on 14 April. In an enthusiastic match the 54th Arbury Cub Scouts beat the Over Huskys by 3:1 to win the Inter District Cub Scout Football Acorn Cup. Katherine, snugly dressed for the occasion in a woollen suit, sheepskin coat and coordinating accessories, presented the cup to the ten-year-old winners with an appreciative speech and a warm smile. Acorn provided the cup, 'a proper big silver heavy one', in 1984, and this is not the first time that it has been carried triumphantly back to Arbury.

Michael Page sleeps soundly in a convent cell

When Michael Page accompanied Kenneth Baker to Portugal he little dreamed where he would spend the night. The purpose of the trip was to present two Archimedes 310 computers to a teacher training college outside Lisbon, and the party spent two nights in the Portuguese capital. With ancient trams rattling past the entrance, a small doorway in the wall, the York House Hotel was unexpectedly quiet inside. All the bedrooms - sparse but comfortable - led off a dimly lit corridor and looked out over a plant-clad patio. The calm atmosphere that must have existed in the building's years as a convent had been captured by the new management to create a delightful hotel well off the tourist track.