MICRO SCOPE -
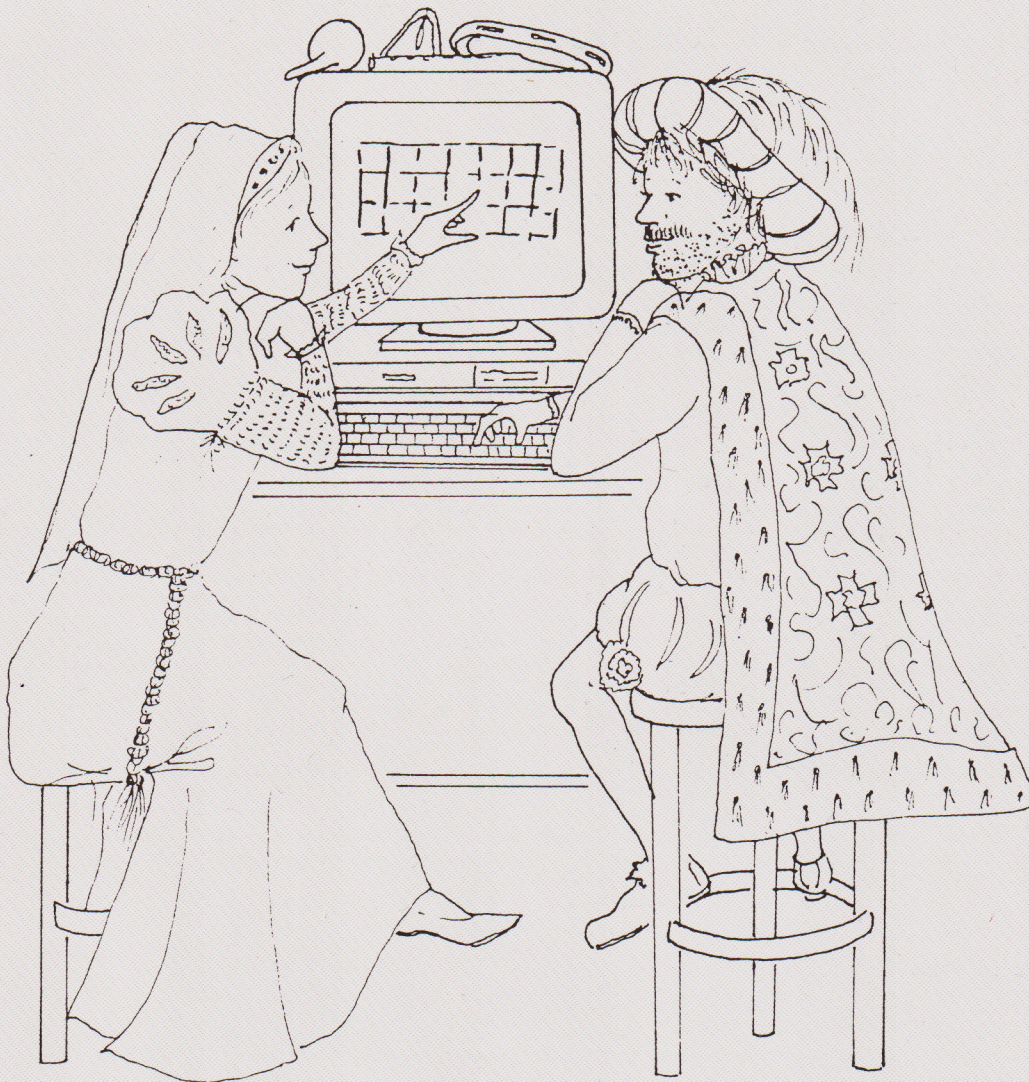
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NEWMAN COLLEGE with MAPE

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MICRO-SCOPE matters

Chris Robson

In *MICRO-SCOPE 36* I began our new feature, '10 years ago . . .' with extracts from Issue 6, published in June 1982. Looking through *MICRO-SCOPE 7* for the next set of extracts, it was not only the similarities and differences which struck me, but also the significance of what was happening exactly 10 years ago. The first sentence read: 'The announcement of the DoI scheme to subsidise micros for primary schools clearly marks the beginning of a new acceleration in development.' Ron Jones, then the Chairman of MAPE, explained more: 'The scheme started on 1 October 1982 and will continue until 31 December 1984. . . . I am confident that most primary schools will take advantage of it.'

Yes, it really *is* 10 years since computers put in an appearance in primary schools all over the country; it was a time when many of us learned a new kind of patience as we loaded software from tape, and indulged in a new form of exercise as we doggedly carried micros and monitors out to our cars on Friday evening and back into school on Monday morning! It is easy to look at the difficulties which still face us and feel disheartened; finding sufficient time and money to provide the necessary INSET is becoming increasingly difficult; the ratio of pupils to micros in primary schools is still only about 28:1; rapid developments are making those micros about which we were so excited 10 years ago almost obsolete, and the cost of total replacement is beyond most schools. But it is worth bearing in mind what Roger Keeling pointed out on page 2 of *MICRO-SCOPE 7*: '. . . educational innovation is generally a 20-year process' and realising just how far we have progressed, and we're only half-way there!

John Lane, the editor of *MICRO-SCOPE 7*, continued, 'Acceleration is fine on a good

motorway with a trained driver and a map – but it also takes place when you let go blindfold on a helter-skelter. . . . *MICRO-SCOPE* is pledged to continue to chalk up successes and follow the trail-blazers with helpful signposts.' So, what successes and signposts can you read about in Issue 37?

Sheila Wilson gives us more ideas for using the ever-popular Owl Pack ('MAPE does not intend to produce its own software . . .' *MICRO-SCOPE 7*) and later gives us her thoughts about keyboard skills. There is also a response to Peter Hampson's thought-provoking article in *MICRO-SCOPE 35* from Carol Lancaster, news from Keith Hemsley of materials which NCET is sending to all primary schools and an account of the Apple Mac work in Richard Chapman's classroom. Articles from Desi Donnelly (Northern Ireland), Tómas Ó Gormain (Eire) and Chris Hurrell (Jordanhill College, Glasgow) give this issue a Gaelic flavour and we have a musical interlude in the middle.

There is, however, a continuing shortage of articles and reviews from RM Nimbus users so please, Nimbus users, write to me! I know from talking to colleagues all over the country that plenty of exciting work is going on, so do please let us know about it, or send me some reviews of Nimbus software. Unsolicited reviews and articles are welcomed!

Going back to *MICRO-SCOPE 7* (I really *do* recommend anyone who has early issues of *MICRO-SCOPE* to browse through them!), I have revived MAPE Matters. This section, towards the end of the magazine, begins with news from the Chairperson, includes the regional news and other items of 'domestic' interest, and concludes with MAPE software news.

Finally, how does your *MICRO-SCOPE* arrive? We occasionally hear from members whose copies of *MICRO-SCOPE* arrive a little worse for wear. Quite often this is due to 'local variations' in the delivery service; the MAPE Information Officer recently had a plaintive phone call from one member whose *Into Europe* special, discs included, had been neatly folded in half, despite the 'PLEASE DO NOT BEND' stamp! Replacement discs were sent; two days later she rang again . . . yes, you've guessed! A further set of discs was prepared and packed, we

hope, in a way which will defeat the most determined postman. We hope that the new laminated cover and better quality envelopes we now use are keeping these occurrences to a minimum but if you are disappointed with the condition of your *MICRO-SCOPE* when it lands on the mat, please let us know by dropping a line to Yvonne Peers, the MAPE Information Officer, at Newman College. We want to ensure that the road maps and signposts with which we keep you supplied are clear enough to be helpful.

Aroamertherapy

Desi Donnelly
Curriculum Support teacher, South Eastern Education & Library Board, Northern Ireland

I know it's a terrible title but I couldn't resist using it, and anyway, I do find the Roamer a very therapeutic piece of hardware for dis-illusioned children!

For those who have never seen a Roamer, he/she is a little robot developed by Valiant Technology for use in Logo-like and and control technology activities. Notice that I didn't use the pronoun 'it' when referring to this piece of machinery, for inevitably the Roamer takes on a personality of its own. Unlike its older and fussier brother the Turtle, the Roamer leads children into areas of design, science, music, maths and geography without tying up a class computer. Many years ago I would introduce Logo-like activities by using *Bigtrak* but this was not mathematically calibrated and was also quite fragile. I graduated to the Turtle, which was an expensive, temperamental instrument that, despite constant recharging, would sometimes refuse to do what I wanted.

The Roamer is not as precise but is much more accommodating and charismatic. The bland, hemispherical appearance is deceptive, for this very blandness is an invitation to children to imbue him/her with an identity of their own. To this end Valiant have design packs for customising your Roamer and Roamer jackets so that children may create different per-sonalities away from the device, which can then be slipped on easily according to theme. In my position as a curriculum support teacher visiting various schools, I have seen Roamers made into Orville the baby duck, after children had seen a Keith Harris concert in Belfast; into the Titanic with a room full of polystyrene icebergs to be
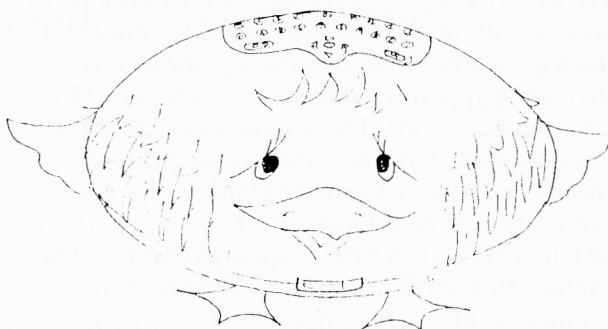
Orville, the baby duck

avoided; into a portable set of traffic-lights or into a World War Two tank, avoiding hidden landmines on a co-ordinate landscape. Even without design-packs or jackets, children can, by dextrous use of Blu-Tak, fit toy glasses, noses, moustaches and headgear to create a class pet or person. Is this the first step to the friendly android? Valiant have encouraged this design element by running a competition for the best dressed Roamer, with local heats and a national final in June 1992. At the Belfast heat there were Roamers dressed as mini-beasts, crocodiles and various birds, not to mention people and robots. I hope this competition will happen on an annual basis – it is such fun both for children and for their teachers!

Setting up

There is a pre-existing program in the Roamer's memory when you switch it on, and you will need to cancel this before entering your own program.
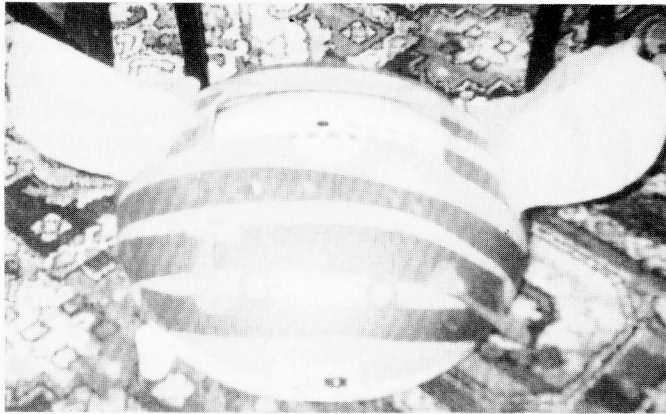
Figure 1 *Roamer as a bee for minibeasts project*

Figure 2 *Roamer as the 'Very Hungry Caterpillar', courtesy of Erne Special School.*

Roamer turns in degrees and moves backwards and forwards in units, the default value of one unit equalling the diameter of Roamer. However, units of turn and of movement can be 'customised' which is particularly useful when using Roamer with young children.

Let us imagine that a teacher wants her 4–5 year-old children to use Roamer with simple commands such as FORWARD, BACKWARD, RIGHT and LEFT. The tiles on the classroom floor are 40 cm square so the teacher sets one Roamer-step to be 40 cm by entering CM ↑ [40]GO. Young children have no grasp of complex angles or large numbers so the teacher can call a right angle 'One turn' and set Roamer to make right-angled turns by pressing CM ↑ [90]GO.

When the teacher draws a road seven tiles long with a left turn at the end of it, the child programs the Roamer by pressing ↑ 7 ⌐ 1.

Using the Roamer in class

Roamer activities can be designed to suit children of all ages and abilities. Younger children can begin with simple movement exercises which consist of physically pacing out and counting steps or discriminating between left and right turns. Initially they may only be able to handle one Roamer action at a time rather than building up a sequence of actions. One useful activity is 'Roamer Hopscotch', leading to simple addition and subtraction routines. Forward is, in effect, 'plus' and Back is 'minus'. The teacher lays out a simple number-line in squares from 1 to 9. Children are asked to move the Roamer from, say, 4 to 7, by programming in Forward 3. In early counting activities, many children erroneously count the square from which they began rather than starting the count from the next number in line; working with Roamer is an ideal way of reinforcing the correct procedure.

The Roamer can be used for pushing, towing loads, climbing inclines, playing football, and is particularly useful in music, maths, geography and science. Children empathise with the little creature and can transform him/her into any desired role in their micro-world. They can name him/her and build a Roamer-house from old boxes. They can then build a cardboard-box town with roads, shops, houses, traffic lights, pedestrian crossings and playgrounds which Roamer can explore, stopping for junctions and crossings. Children soon extend Roamer's role, inventing return journeys and creating scenarios around these journeys.

Because they are relatively inexpensive, a school can buy a couple of Roamers which in turn leads to complex interactions and synchronised movement between creatures. Teachers can encourage the children to use a variety of tapes and rules to measure distance These activities promote estimation of distance, turn and time. The children also discuss and negotiate their actions, automatically extending the range of activities and creating stories around them. Younger children can, by laying hands side by side, count distance in sets of 10 cm, ie 10, 20, 30, etc. Older children can use their spans to count in sets of 15 cm, ie 15, 30, 45. Individual hand-size doesn't matter as children will eventually work out their own distance calibrations. Miscalculations are just stages in the acquisition of competent estimation and measurement skills. When dealing with angles, children quickly learn about 45, 90, 180 and 360 degrees, so that older children can solve such problems as the amount of degrees required to turn anticlockwise from North to Southwest in a very practical way. Putting a compass-rose

on the floor gives them the concrete experience of programming the Roamer to turn from one compass-point to another.

Many of these activities are good examples of Bruner's Spiral Curriculum wherein children return to experience the same concept at varying levels of difficulty and also use his Enactive Mode of Learning. LOGO theorists may refer to this enactivity as using the 'syntonic sense' wherein the child imagines itself as part of the Roamer when working out problems. Talking of spirals, try fixing a pen to the circumference of the Roamer-body either by the special pen-holder or even a piece of Blu-tak and program-ming in a few rotations and forward movements. By dropping the pen down through the centre-hole of the Roamer children can program shapes through a series of movements rather than by static-visual observation. These shapes can be stored as procedures and a series of procedures can be can be linked together to make more complex patterns.

A procedure for a square [for example, Procedure 1 – P1], would be stored as follows:

P1 [Right 4 [Forward 20 Left 90]] GO.

A circle might be

P2 [Right 36 [Forward 1 Right 10]] GO.

The pupil just presses P2 GO to execute a circle. Notice that the brackets for the repeat are inside the brackets for the procedure. These procedures are lost when the Roamer is switched off, but they can be stored on disc. There are Logo programs for all micros that can transfer the children's exploration of shape onto screen graphics.

Music on the Roamer

The Roamer can play music over three octaves and at five different speeds. By repeatedly pushing the music sign (crotchet) followed by two numbers, children find that they can create music. The first number represents the duration of a note and the second number is the pitch. The numbers from 1–12 represent the chromatic scale C' to C". So a simple diatonic scale on the key of C (doh, ray, me, etc) would be 1 3 5 6 8 10 12 13. By selecting any two of these notes and experimenting with durations children can imitate police/fire sirens or cuckoo and other birdsongs. There are many simple tunes that can be played on the first three notes, 1, 3, 5, using just short-quaver notes (2) and longer-crotchet notes (4). Try com-posing 'Au claire de la lune' using notes 1, 3, 5.

Cuckoo in the nest!

Here is a seasonal five-note tune using the notes 1 3 5 6 8 only.

"Jingle Bells "- ♪25 ♪25 ♪ 45 ♪ 25 ♪ 25 ♪ 45 ♪ 25 ♪ 28 ♪ 21 ♪ 23 ♪ 65 ♪ 26

♪ 26 ♪ 46 ♪ 25 ♪ 25 ♪ 45 ♪ 28 ♪ 26 ♪ 25 ♪ 23 ♪ 41.

Don't forget that you can use the repeat sign with brackets to extend your tunes. Other consecutive five note tunes are 'Oh, when the saints come marching in', 'The banks of the Ohio', 'Boys and girls come out to play', 'See the conquering hero comes', the chorale to 'Jesu, Joy of Man's Desiring' and 'Ode to Joy' from Beethoven's 9th Symphony. On a more modern theme, the Beatles' song 'I'll get by with a little help from my friends' was written by Paul McCartney on five consecutive notes to accom-modate Ringo Starr's limited vocal-range! There are many other examples of 5-note tunes such as Celtic and oriental tunes which are written in the pentatonic mode.

Further activities

There are many peripherals available for the Roamer, some of which have already been mentioned. One very exciting add-on is the Roamer control box which costs £40 and fits onto the underside of the Roamer. This is in essence a Barnet-type box which allows the children to enter the world of control technology and build procedures for controlling bulbs, buzzers, bells, Lego motors and stepper motors. These can be activated by various switches, both mechanical and electronic. The purple buttons next to the music button control these extra functions. The Roamer can drive four outputs simultaneously and has two inputs, one of which

is for switches that require electronic enhancement such as light dependent resistors. These activities are so much easier on the Roamer than on the standard computer. A three digit code will switch an item on with no need to worry about spelling or spaces. Think of the international capabilities of a device that relies on mathematical symbols rather than words to control the environment! In normal use, two standard lantern batteries will drive the Roamer adequately but when you have control facilities they can run down quickly. The control facilities greatly enhance the environment that the Roamer lives in so if you are making extensive use of these, it may be more cost-effective to buy the rechargeable kit although, unfortunately, this costs almost as much as the Roamer. If you have a number of Roamers some can be fitted with traffic-lights which the others must obey. Reed switches can be fitted so that, upon meeting each other or meeting a magnet, Roamers can be programmed to undertake specific actions appropriate to their scenario. The curved surface of the body allows for the strategic positioning of tilt-switches when the Roamer is using ramps.

Roamer can be used in many ways, but there are a few things which could have been added to make it even more flexible. Had a decimal point been included (and there would be room for it if the CE pad were moved sideways) then more complex control work would be possible. For example, effective flashing lights need a pause of less than one second. The lack of a decimal point denies the children access to the infinite world that lies between one and zero and I can see no reason why this could not be done. At the moment, the teacher can now program a pause of less than one second by diverting the Roamer with an empty procedure and using this procedure as a small 'wait' instruction thus:

P1 [Right 1 [ ]] GO.

The Roamer cannot handle *recursion*, ie you cannot put a procedure inside itself! If I wanted the Roamer to wait in the dark and sound a horn when somebody turned on a light, rather than waiting for a set number of seconds, Roamer would need to keep scanning until a light-sensitive input was triggered. Perhaps recursion has been deliberately excluded as it is can be demanding on both memory and batteries. The documentation that accompanies the Roamer and its control-box is well presented with a systematically progressive set of activities although I found the notes on the input sections of the control-box rather hard to follow. Many teachers will not know the difference between mechanical and electronic switching and this I feel needs further elaboration. Also, the sections on the different types of switching conditions (high and low) are spread over different areas rather than being presented as a cohesive whole. Perhaps I'm being too demanding in expecting fine control from a very low-cost apparatus and Valiant now have a stand-alone control box which I have not yet seen and which probably supplies these extra features.

But who would have thought even five years ago, that, for approximately £80, we could have purchased such an excellent aid to teaching, and one which develops the children's imaginations alongside with their mechanical skills? If Roamer proves to be sufficiently robust to survive the long-term wear and tear of classroom life, it may turn out to be an essential item in the school budget. Ever the optimist, I look to the not-too-distant future and envisage the next technological leap. With the falling costs of electronic hardware, I see each child having its own programmable, fashion-conscious, solar-powered 'pet' which will assist with studies and games and be an extension of its owner's personality.

Editor's note: Roamer articles in recent issues of *MICRO-SCOPE* include: 'Fred the Roamer', Technology Special, Autumn 1991 and 'Using Roamer with visually impaired children', *MICRO-SCOPE 34*, Autumn 1991.

Further information about Roamer can be obtained from Valiant Technology Ltd, Myrtle House, 69 Salcott Road, London, SW11 6DQ. Tel: 071 924 2366 or 071 738 9595.

Using *The Lost Owls* and *Screen Thief*

Sheila Wilson
Alban Wood Infant School, Watford

Lost Owls

Last term I decided to use *Lost Owls* as part of a project on Flight. I do not intend to give a blow-by-blow account of how I used the program because most of us would use the program in a similar way, but some items came up which may be of help or interest.

I had planned to do some map work by encouraging my children (Y1 and Y2) to map the routes they took when looking for the lost owls and exploring their environment. Needing to reinforce the concepts of North, South, East and West, I decided to make an off-the-computer Lost Owls Adventure Game. To do this I reproduced *Lost Owl* screens, in colour, using *Screen Thief*. I also made arrows and a bank of north, south, east, and west words. Using this 'equipment', the children created their own scenarios, which their friends then had to solve.

The game was a great success because:

- the whole class enjoyed the game;
- the children realised they could capture screens and add them to their own adventure stories;
- they asked to be allowed to extend the game by printing Adventure 2 screens to make it more interesting and challenging;
- they thought the game could be improved if additional directions (SE, NE, etc) were added to the word bank, thus adding a new dimension to the game.

The pleasing part was that the children felt that they were controlling their own learning; little did they know how many hours of planning had been needed to produce the topic web my colleague and I had made, and that their suggestions fitted into it quite snugly!

While working with *Lost Owls* I discovered that if you cut a bird outline from the lid of an ice-cream container, using the rim for the claws,
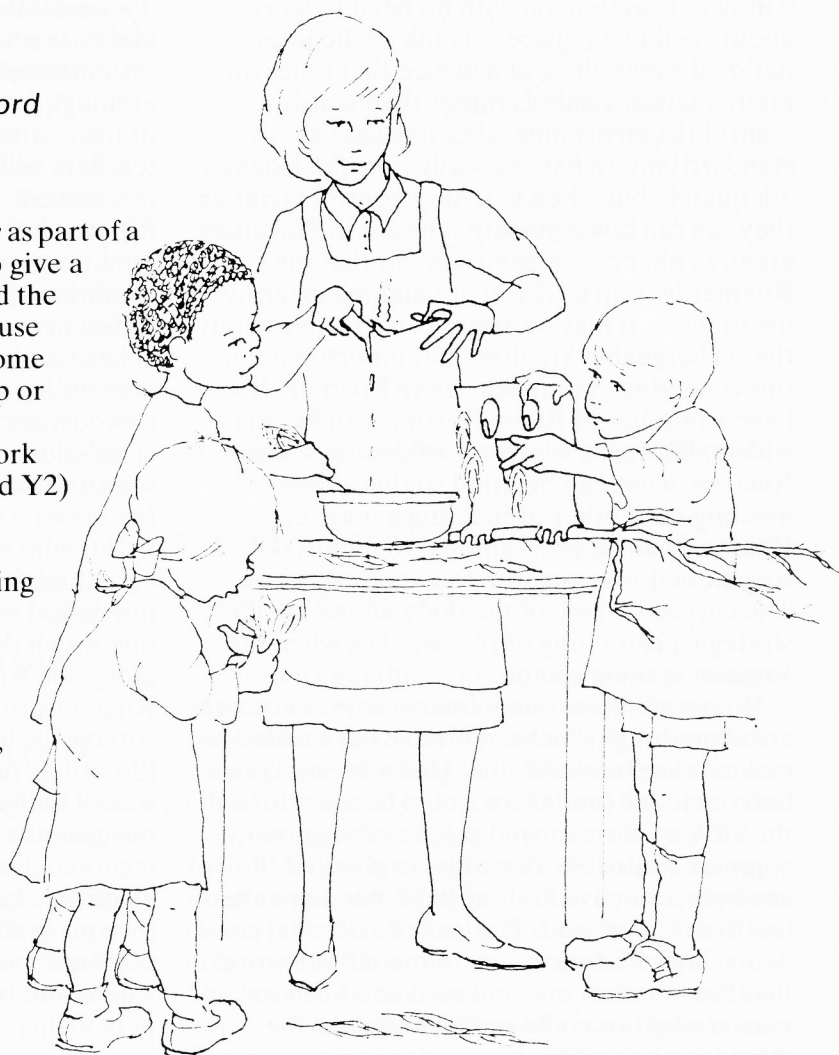
the final result will hold on to a branch provided that you help it with a bit of glue. Having read the story of Daedalus and Icarus we decided to stick feathers onto our 'owl' using melted wax from a candle. This may be good National Curriculum Science but is rather hairy on the safety side unless it is done in very small groups with 100 per cent supervision!

Screen Thief

Screen Thief is designed to work with either a BBC B or with a BBC Master, and when it is run it tests to see on which of the two machines it is being used. If you have sideways RAM in a BBC B it gets this test wrong and assumes that it is running on a Master. So the last screen it displays before finishing its installation will say:

```
      Screen Thief is ready to use

   BBC Master 128        Double drive

  Run your program normally
  At any time you can press..

    CTRL & F to freeze the screen
    Then C to continue the program

  To save a screen onto disc..

    Freeze the screen, put the
    Screen Thief disc in drive 1

  Press S to save, then press C


      Press any key to continue
```
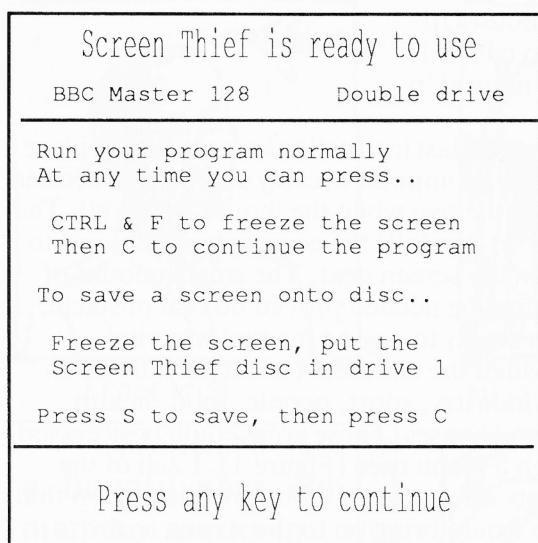
Don't panic! Instead of 'Pressing any key to continue' as the screen invites you to do, you must instead press CTRL/BREAK. (For the technically minded, *Screen Thief* loads into sideways RAM and emulates a sideways ROM. The ROM filing system is reset by a CTRL/ BREAK, and therefore CTRL/BREAK must be pressed for the system to become aware of *Screen Thief*'s presence.)

On both a standard BBC B and a Master, the screen instructions work without amendment.

Another technical note: you cannot save screens from some programs (of which *Lost Owls* is one) on a standard BBC B, because *Screen Thief* needs a little-used area of memory (Page = &900) that the program itself also uses.

In conclusion, I do recommend *Lost Owls* – it has so much potential at so many levels within the primary curriculum.

Further information

The Owl Pack (The Lost Owls), otherwise known as *MAPE Disc 5*, contains software for the BBC or Nimbus and a comprehensive Teachers' Resource Book. A version for the A3000 is available from Newman software. See MAPE software news on page 32 for further details.

Screen Thief is a utility which freezes a program and enables the current screen display to be saved to disc and printed. As Sheila noted in her article, it works with most but not all programs. *Screen Thief* is an NCET Blue File program and costs £3.75 + VAT + £2.50 p&p, from NorthWest SEMERC, Fitton Hill Curriculum Centre, Rosary Road, Oldham OL8 2QE. Tel: 061 627 4469.

Other screen saving and printing programs for the BBC and Master range include *Snatch* (£23.00 + VAT, from 4mation, 14 Castle Park Road, Barnstaple, Devon EX32 8PA, Tel: 0271 25353) and *Screenprint* (price from £37.50, from esm, Abbeygate House, East Road, Cambridge CB1 1DB, Tel: 0223 65445).

Teaching and learning about distant environments using *Hypercard* and the Apple Macintosh

Richard Chapman
Michael Drayton Middle School, Nuneaton

I have for a number of years struggled to make my teaching about distant places an exciting and stimulating learning experience for the children. It has always been a concern, but new influences have forced many of us to investigate different approaches and solutions. The combined stimuli of the National Curriculum, trialling the Apple Macintosh for Warwickshire Education Computer Centre (WECC) and my studies at Warwick University began a new learning experience for both the children and me. Could I marry the use of photographs that would challenge the children's concepts of a country

with the power and possibilities of the *Hypercard* program?

Four main aims were set:

1. To investigate the children's concepts of Brazil.
2. To challenge those concepts if necessary.
3. To investigate some of the possibilities of the *Hypercard* program for the Apple Macintosh.
4. To establish a database that other children might interrogate.

The starting point was to ask the children to record their concepts of the country of Brazil.

Initially they did this in words on an individual basis. I tried to encourage them by posing questions, eg What are people like in Brazil? How would people there move around?

A class sharing time was then held with the blackboard acting as the recording centre for all of the children's words. The variety of perceptions demonstrated was enlightening. One particular word was then chosen by the children to show graphically. Black fine line pens were used to give a sharply-defined image, which was then scanned into the computer.

It was clear that some of the ideas that the children held needed challenging. It would have been illuminating to trace the source of these concepts, though I'm sure that the television would shoulder a large part of the responsibility.

I decided to challenge the misconceptions by using photographs. It took quite an extensive search to find positive images; even recently-published material presents a stereotyped view, and finding a photograph of a Brazilian wearing a suit was almost impossible! Publications by the Development Education Centre proved particularly useful. A collection of about 30 photographs was spread out around a large hall and then presented to the children for their comments. This was done individually with the children recording in their own notebooks, which they carried around with them. This eliminated any cross-fertilisation of ideas, which I felt at this stage was undesirable. The main question posed to them was, 'What about the pictures surprises you?'

All the activities so far described could have been undertaken without the aid of computers and would have achieved, to some degree, my first two aims. But would the use of information technology raise the learning level?

Hypercard is a program that simulates a stack of cards. Information can be placed on the cards and that information can be searched for, using a keyword system. 'Buttons' can be placed on the cards and these buttons can be given instructions that will be carried out when the button is clicked on using the mouse. A typical example of the type of programming needed to move from one card to another might be:

```
on mouseUp
go to cd road2
end mouseUp
```

The first and last instructions are already in place and tell the computer to carry out the instructions between the two when the mouse is clicked. The middle set just tells the computer which card to show on the screen next. The small amount of programming needed proved no real obstacle, though access to a good manual was vital.

I divided the children's concepts into seven areas: industry, sport, people, food, health, roads and houses. These areas could be accessed through a menu card (Figure 1). Each of the concepts was assigned a button; clicking on that button would bring on to the screen a card showing the children's ideas.

On selecting an area, the children's drawings appeared first. Their concepts were then challenged by the photographs, annotated with their comments. A similar format was used for each of the seven areas; first the image created by the children followed by photographs challenging that concept. Some subtle variations were used; sometimes the photographs would automatically scroll on, at other times a mouse click was needed. Three small sections of animation were added to the cards to enhance the 'interest' factor.

The children added another section to the computer program. They entitled it 'six Brazilian people'. Resource material from the Development Education Centre (Brazil) enabled the children to complete profiles of six people with differing life styles. Information,
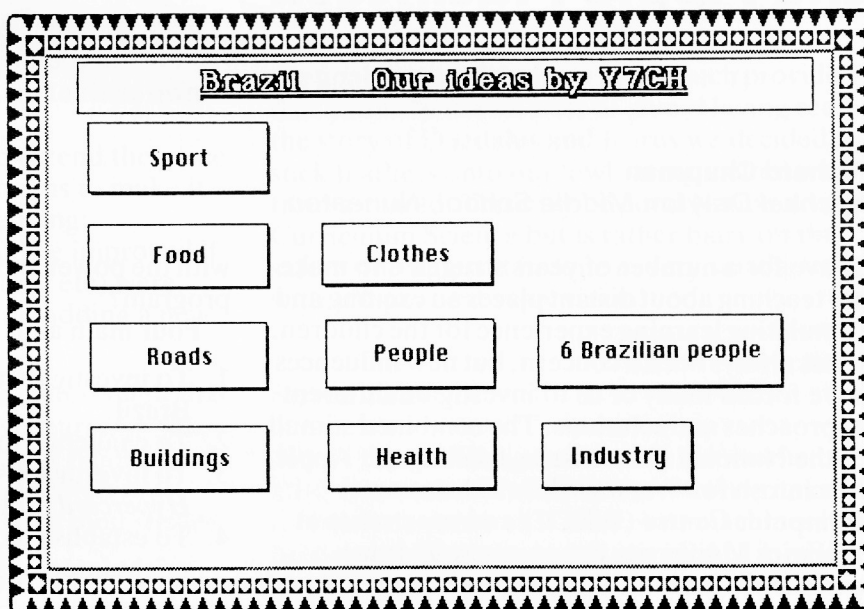
Figure 1 *The menu card. Children choose the area to investigate from this card.*

> Francisco is a twenty year old man he works in the brazilian air force as a trainee air traffic controller. At school Francisco worked extra hard at learning the english language
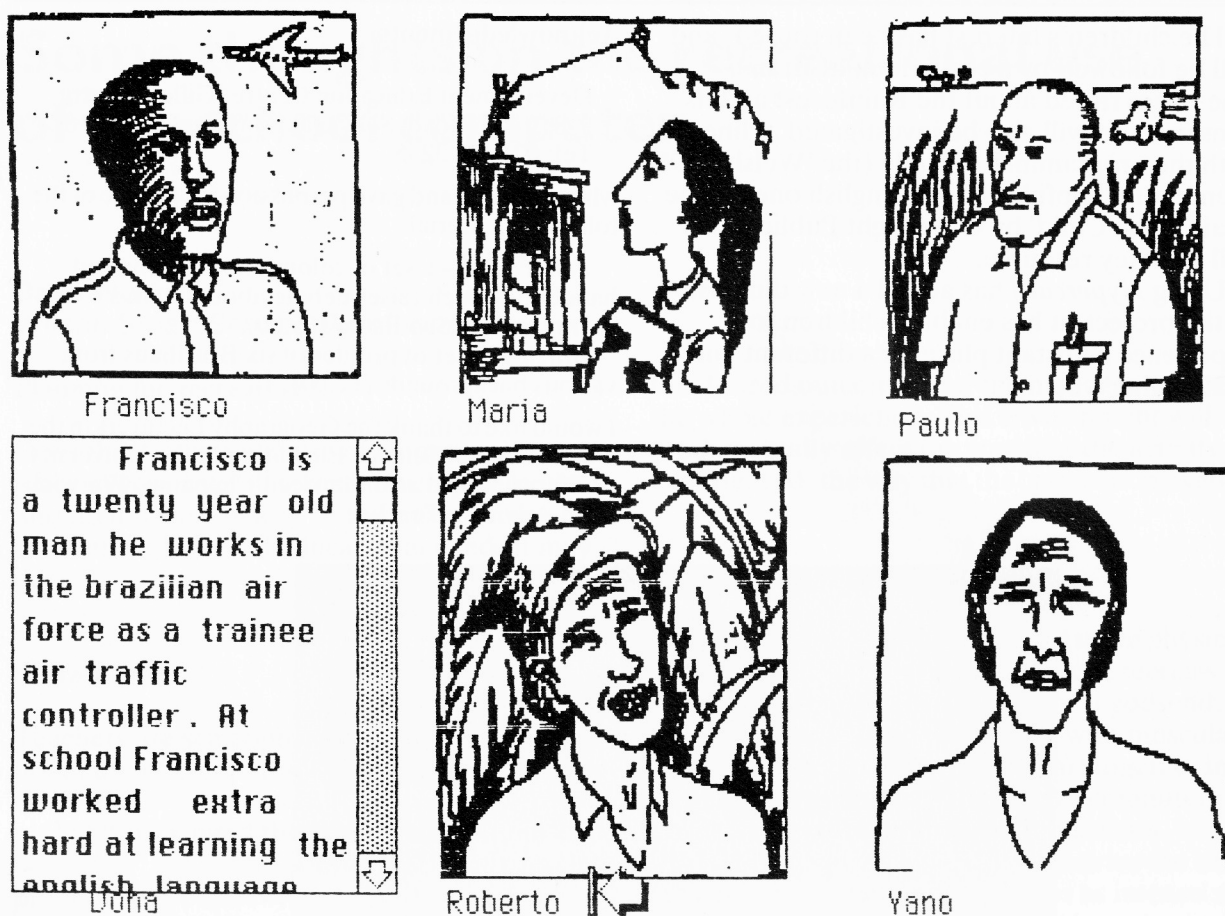
Figure 2 *This card gives information about six people of various backgrounds who live in Brazil. When the desired picture is clicked, the text about that person appears. At the side of the text the arrows indicate a scrolling system which will reveal considerably more details about the individual. Information came from the 'Brazil' pack from the Development Education Centre.*

both written and pictorial, was entered onto a card for the children to access and compare (Figure 2, above).

Evaluation

1. There was great value in the children presenting their material in this way. They were really excited to see their drawings and comments. This was obvious in the way that the children investigated the program; they always selected first the section that included their own work.
2. The program is suitable for the children to use and helps them to develop their own comparisons between countries, areas, etc.
3. I feel that the program, which makes comparisons easy, will reinforce the challenge that the photographs made to the children's concepts.
4. The feeling of remoteness that children often have when studying a distant place has been somewhat diminished. Brazil is now not

'some strange place on the other side of the world'. Comments like 'that's just like ours', and 'I didn't think they would have those', were typical.
5. The activity was a good way to initiate a topic on an 'Economically Developing Country' as outlined in the Programmes of Study for key stage 3.

Still to come

Once all the children have investigated the database, I shall ask them to repeat the first activity of recording words that sum up their idea of Brazil. I hope then to be able to investigate whether the children's concepts have changed.

The program will be presented to other children for their investigation. Will it be as successful or is it the process of presenting their own ideas that is the key? The initial excitement from the children on seeing 'their picture' suggests the latter.

The children's interest has been roused, and will be followed by a closer look at Brazil. The issues raised about the Rainforest and its conservation will also be investigated in line with the programmes of study (the 'Welsh' POS seem more helpful than the English ones). The 'Rainforest Child' by Greenlight Publications will be a key resource.

Using *Hypercard* has added a new dimension to the project; it has enabled children to experience a 'distant place' in a different and challenging way.
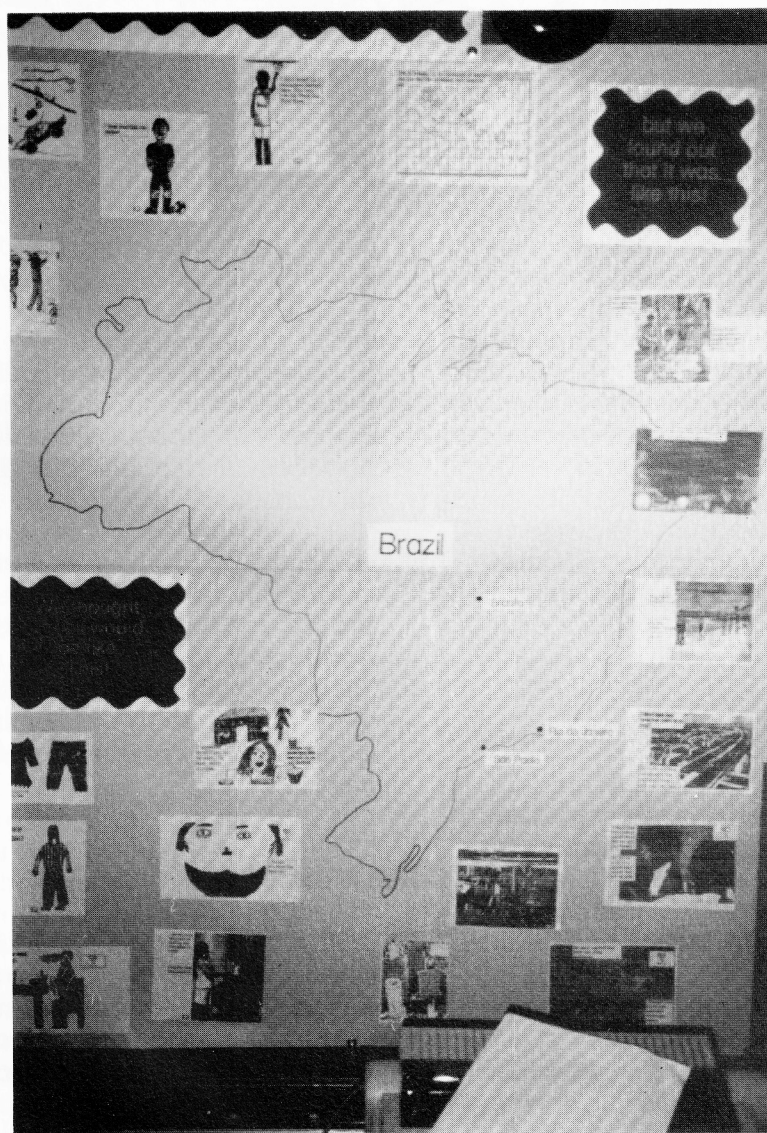
Figure 3 *Children's work displayed at a recent Warwickshire Education IT Festival in Leamington Spa.*

Some thoughts on the recreational use of the school computer

Dave Wood
Wilson Stuart School, Birmingham

Planning for recreation?

Does the recreational use of computers have a place in your overall school development plan? Should it have a place? In the case of some children with special educational needs it may do.

Schizophrenia

Teachers are schizophrenic about the recreational use of computers for an apparent variety of reasons.

On the one hand they may see this as an 'improper' use of the equipment, leading to its premature breakdown from the over-use of particular keys. They may see all recreational use in terms of noisy 'shoot 'em up' games leading to all sorts of unhealthy attitudes, or worse, fixations.

On the other hand they may say to themselves: 'We try to make educational activities interesting by devising 'game-like' strategies, competition etc. Children are positively motivated by things which amuse, interest and excite them. It is up to us as educators to capitalise on these elements.'

Appropriateness

The questions that should be asked are surely these: 'Is this an appropriate activity for this child at this time?'; 'Is there something in this to be gained for these children that could not be achieved as well another way?'

According to the sentiments expressed in the positive argument above, some computer games may have educational value. They may involve the learning of rules, the need to develop strategies, the development of social skills such as turn taking and even the promotion of motor skills.

There must however be more to the question of appropriateness than this. At issue is the environment in which the activity is taking place, the desired outcomes and the management of the whole experience. This environment will fundamentally affect the way that the activity is experienced, the way that the 'game' is 'played'.

Special needs

For a child who is unable to join in more physical activities due to his or her condition, recreational use of the computer may be a godsend. I have witnessed three youngsters with muscular dystrophy and a teacher taking part together in a motor racing simulation using two computers connected together. Although this was a simulation game using joysticks to drive the cars, for these boys the experience was as intense as that of another group taking part in a physical and exciting football match.

The motivation of children with particular special educational needs is frequently seen as a key factor in achieving progress. In such cases it can be argued that almost anything that gains interest can be utilised and built upon to provide educational opportunities.

A difficulty here can be that of justification. Whereas the argument for motivation may be accepted, there may still be niggling doubts about the true value of the experience. We need to examine more closely why we have these doubts and whether or not they are justified.

The need for recreation

Is it always appropriate to be undergoing an 'educational' experience? In any mainstream school day there are times for recreation. Children may, if given the opportunity, choose to utilise these in a wide variety of ways; indeed a major aspect of recreation must be choice.

In our own lives we may frequently indulge in activity where an onlooker might be hard pressed to decide whether we were 'recreating' or 'working'. There is a strong element of the Protestant work ethic in some individuals which seems to suggest that if the activity is enjoyable

it cannot be 'work'. This surely flies in the face of our own experience, yet we may still hold to a part of this ethic in spite of that knowledge.

Play as work

When working with a computer this issue can be even more difficult to unravel.

Many of us will have had the experience of, say, creating a document in a powerful package like *Word for Windows* which is for us clearly work, ie the document has to be completed to a deadline, and we are finding it somewhat of a chore.

On another occasion an observer may see us working with the same package in another situation. In this instance we may be exploring some parts of *Word for Windows* that we have not experienced fully before; we are finding out what it can do and exploring new ways of working; we are playing with the computer. We may well justify this activity to others in terms of the benefits this exploration is going to convey to our future work and this explanation is most likely to be true. Indeed we would probably not have achieved the skills we presently have without this ability to 'play', for playing is what we are doing, and in our hearts we usually know it, and may well indeed experience a small pang of guilt.

It is a byword amongst teachers of the very young that play is the business of learning. Why then do we still find the need to justify it?

Perhaps the main reason is to be found in the question, 'Who is controlling the situation?' If the learner is exercising his own choice, if it is harder to see the structure underlying the learning process, it takes a confident teacher to stand back and allow the process to happen.

All things in their season

There must however be a time and a place for all things. This is implied in our earlier example of the adult user of *Word for Windows*. Self-discipline is required in order to achieve the desired results. It would be no good if most of the time for writing the document were to be taken up playing around with Macros, for example.

Similarly, we expect this discipline to be learned in our schools.

Worthwhileness

A key issue in the school setting must be that the activity is felt to be worthwhile. This must be so whether the activity takes place in the classroom or in a more informal situation. What is it then that makes the activity worthwhile and what is it that can detract from that worthwhileness?

To a large extent the answer to these questions will be a matter for the judgement of the teachers involved. This judgement will be influenced by the 'educational' content of the software being used, but it may also be influenced by issues of morality, of fairness to others (noisy games versus more contemplative activities), and even of political correctness.

Types of recreational activity

It is clear from the adult example already given that recreational activity on the computer need not only take the form of a computer game. As one individual may prefer to recreate via a boisterous game of football, another might read a book or do some drawing. In like manner the whole range of computer activity is open for recreational use. It is up to us as teachers to monitor and shape that activity to offer greatest recreational opportunity as we offer educational opportunity in the classroom.

My own reservations

I have said that teachers are schizophrenic about the recreational use of computers in schools. I admit this; I am schizophrenic about the recreational use of computers in my own situation. These are some of the issues I am struggling with.

Pros
I believe that an individual has the right to recreation. I believe that all schools, but particularly some special schools, have a duty to lead a youngster to be able to spend some of his or her time in recreation. I believe that computers may, for some children, offer a recreational road of great opportunity.

I believe that IT capability in pupils and in teachers is founded only in use. The recreational use of the computer must surely create more familiarity.

I believe that social functioning can be developed during the playing of games. What kinds of games are beneficial in this regard? What kinds of computer use, if any, may harm social functioning?

I believe that all individuals need an opportunity to shine. The computer game may offer this to an otherwise unrewarded person.

Cons

I feel that, unless controlled, some pupils' recreation can harm the opportunities of others. The easy example is the noisy computer game detracting from the enjoyment of a pupil using a graphics package. Another aspect is the clear attraction that some kinds of game have for boys as opposed to girls. Is the division of the sexes already pointed out by some observers of IT activity being worsened?

I feel that I may need to separate physically the situations in which different kinds of recreational IT activity take place. It seems to me that the use of some games during recreation times, although justifiable in ways already described, may swamp other kinds of activity I wish to promote.

I feel it is possible that for some teachers the use of games in the school may engender attitudes to the computer that could hinder the development of their personal IT capabiity. This I would wish to avoid.

Whatever the pros and cons of the argument, I believe that the recreational use of the school computer is something that should be considered and not dismissed without further thought.

Editor's note: What are your thoughts about the recreational use of your school computer? I admit that it is something about which I have certainly felt schizophrenic in the past! Do write and let us know what *you* think.

Musing on the educational IT scene (7)

Thinking computers

Chris Hurrell
Jordanhill College of Education, Glasgow

I look at which computers are being put in front of which people and for what reasons, and in my opinion education, in many cases, has got it wrong.

What education should be doing, rather than swimming against the tide, is looking at what the rest of the world uses computers for, what they are using, and the reasons why they are doing these things.

The time has gone when we taught children to study computers; rather we should be encouraging them to use the computer as we encourage them to use other bits of equipment, ie 'This is a pencil – you can write with it; but you can also do lots of other things with it. I can already hear people saying, 'But it's the software that matters, not the machine that it runs on.' I would agree, it is the software that matters, but

the software cannot exist without a machine on which to run and an operating system to operate the software. The machine also includes things like a common keyboard, a common mouse, common standards of file interchange and common ways of working.

1992 and all that is here with us now and what is the rest of Europe doing when it comes to computers; not just in education but also in industry and commerce, where all our children will one day earn their daily bread?

Take a look at the details of EEC computers shown in Figure 1. What does it tell us? Nearly everybody in Europe, which includes Great Britain, is not using what the vast majority of British education is using, ie **Acorn, Research Machines, Apple** etc. Is this a case of everybody being out of step except us?

Year	Millions of computers	Percentage IBM compatible	Percentage others
1987	2.4	94.0	6.0
1988	3.6	94.2	5.8
1989	4.8	94.2	5.8
1990	5.84	93.4	6.6

Source "Data Quest."

Figure 1 *Computers in the EEC.*

	Acorn %	RM %	Apple %	Other %
England & Wales	70	16	Not quoted	14
Scotland	64	4	12	20

Sources -
England & Wales - Parliamentary Office of Science and Technology report 1991
Scotland - Annual Survey of Listening,Viewing and use of Microcomputers in Scottish
Schools. Sampled survey of 527 schools 1989/90

Figure 2 *Computers in British Education (5–16)*

But notice, you can have **IBM** emulation on the **Acorn Archimedes**. You can have **IBM** emulation on the **RM Nimbus**. You can have **IBM** emulation on the **Apple**. I wonder if something is to be deduced from this?

Also note that **Research Machines** have produced a delightful product called **Window Box** based on a PC 386 machine, running software under the world's fastest selling environment, **Microsoft Windows***. I wonder if they have also seen the way that Europe is moving, and not only Europe but the rest of the world: there are over 88 million **IBM** compatible machines out there, and the number is rising fast.

So why does the rest of the world buy **IBM** compatibles in such vast numbers?

- They are cheap and getting cheaper; competition and technological advance ensures that.
- They are very reliable; the market demands that.
- Manufacturers/suppliers abound, so if one company is not satisfactory or goes under there are 20 others waiting to take its place.
- Repairs are easy as most bits are modular; just take the lid off and unplug dead bit and plug in new bit, again from a multiplicity of competing suppliers.
- Software is being produced at a terrific rate, much of it easily adaptable to whatever needs you may have.
- Software can be very cheap for education if bought in bulk. (See **Microsoft**'s educational prices advert.)
- The **Windows** Graphical User Interface has removed the need to rely on a text-based interface with all the opportunities for error that that has.
- Industry links between schools and commerce are facilitated by a common IT platform.
- Continuity and progression are facilitated by following a continuing line from infant school through to the commercial world using a common IT platform.
- School governors love them; many have been seen to put hands in pockets to come up with cash for what they call 'real machines'.

- The majority of devolved school administration and budgets are run on **IBM** compatibles. etc., etc.

Remember the mess education got into over video standards? Betamax is probably technically superior to VHS (so they tell me) so many education authorities plumped for Betamax only to find that the rest of the world was going the other way. Schools found themselves shunted down a technically superior cul-de-sac marked 'Education only' in which it was expensive to do a U-turn, and only now have they caught up.

A useful analogy comes to mind here. Remember those little blue plastic cars that disabled drivers had to drive? They were special cars designed to enable disabled drivers to get about, and many hated them. They were not real cars; they were not cars that the rest of the world drove; they were not cars that had plenty of garages willing to service them; they were not cars that had spare parts available over the counter at shops in every town; they were not cars that had the roads and infrastructure designed around them; they were cars that marked them out as different. What they wanted and eventually got were real cars, but real cars made accessible to their requirements, and they have never gone back.

A quick scan of the press of the last couple of months has seen a blossoming of adverts all after a slice of the education cake. But what is interesting is who is advertising and where they are placing their adverts.

Apple Macintosh advertisement
– *Times Ed.* and others, 28 February 1992

'The personal computer most suitable for teaching, offers the subjects you most need to teach.

From primary to poly, the **Apple Macintosh** *covers all levels of learning too.*

The software is already in daily use with British teachers and academics.'

The thrust of the ad seems to be saying that the **Apple Macintosh** is the computer that is best for British education because British education uses the **Apple Macintosh**. What it fails to say is that although the **Apple Macintosh** may be seen in growing numbers in education, it is not seen in vast numbers in commerce and industry in the EC. (Note: the magazine *Apple Business* ceased publication in mid January 1992.)

Lotus advertisement
– *Educational Computing*, March 1992

'Lotus *unveils its education policy.'*

Lotus, one of the world market leaders in the production and sales of commercial software, must have seen a market that is ripe for development. They are putting cash into education, not as a public service, but obviously with the hope of making money. They must have done their homework on the possible market, since companies such as **Lotus** do not invest time and money in a declining market sector. Hence I suspect they see **IBM** compatibles in education as a growth area.

Microsoft advertisement
– *Educational Computing*, January 1992

A two-page spread, with the copy:

'Microsoft Education: *making it all make sense.'*

Microsoft is the world's largest producer of software, so when this company targets education, something must be stirring.

Their education prices make interesting reading. A sample is shown in the table below.

So what are we all waiting for? Have a look at the rest of the world; think about continuity; think about progression; think about what you buy.

'Our survival as a nation depends on our capacity to think in the future and act in the present. Then, and only then, will we be able to prepare our children for their future, not our past.'

David Thornburg – Education, Technology and Paradigms of Change for the 21st Century

The hardest part of educational change is the part that costs nothing – vision.

*Windows 3 is the fastest selling retail product in software history. It has sold over 10 million copies to date.'
Jack Schofield – Computer Weekly – 95.03.92
(Windows 3 released in January 1990. Pre-release orders for Windows 3.1 in excess of 1.25 million.)

Product	Education RRP	Non Education RRP	Saving
Word for Windows 2.0	£145.00	£395.00	£250.00
Windows 3.0	£50.00	£99.00	£49.00
Excel for Windows 3.0	£145.00	£395.00	£250.00
Works for Windows	£75.00	£145.00	£70.00

looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back

10 years ago . . .
'The future is full of opportunity for imaginative teachers to use the new technology to complement existing skills and give new life to the term 'curriculum development".'

looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back

10 years ago . . .
'How do you do that? the pupil asked.
My answer, at that point, could only be: "I don't know."
I saw the sparkle in the boy's eyes. His mind was already savouring the possibility of doing something that teacher could not do. . . . I have learnt the magic of offering children "secret knowledge" that even teacher does not know. Above all I have had my belief re-affirmed, that teachers have at least as much to learn from children as they have to teach them.'

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Puzzle page

Following my request for puzzles devised by children, I was delighted to receive this Christmas offering from Lesley Cameron, Caroline Inglis and Christopher Davidson, pupils in Primary 6, East Milton Primary School, Glasgow. The crossword was generated on a BBC B, using NORICC's *Crossword Call-Up*. Answers are on page 30. Thank you, Lesley, Caroline and Christopher! By the time you read this, you should have received your MAPE badges and a small prize to thank you for your hard work.

MICRO-SCOPE 38 will be published by the end of February 1993, so please send your springtime crosswords or word puzzles to me by Friday, 11 December. Again, a small token of appreciation will be sent for all puzzles published.

Clues for ACROSS

3. What was the name of the angel who told Mary that she would have a baby?
4. What was the baby's mattress made of?
5. Where did Mary and Joseph live before they moved to Bethlehem?
6. Who appeared in the sky and sang praises to God?
9. Name the night before Christmas Day.
11. How many wise men were there?
12. Which of the wise men's presents has four letters in it?
14. The earthly father of Jesus was called ——.
15. Name a creature which shared the stable with Jesus.
16. What season is December in?

Clues for DOWN

1. What was Joseph's job?
2. What did Mary use for the baby's cot?
7. The mother of Jesus was called ——.
8. What was the name of the town Jesus was born in?
10. Name the king who tried to kill Jesus.
12. Who gave Jesus his name?
13. To which country did Joseph and Mary flee after Jesus was born?
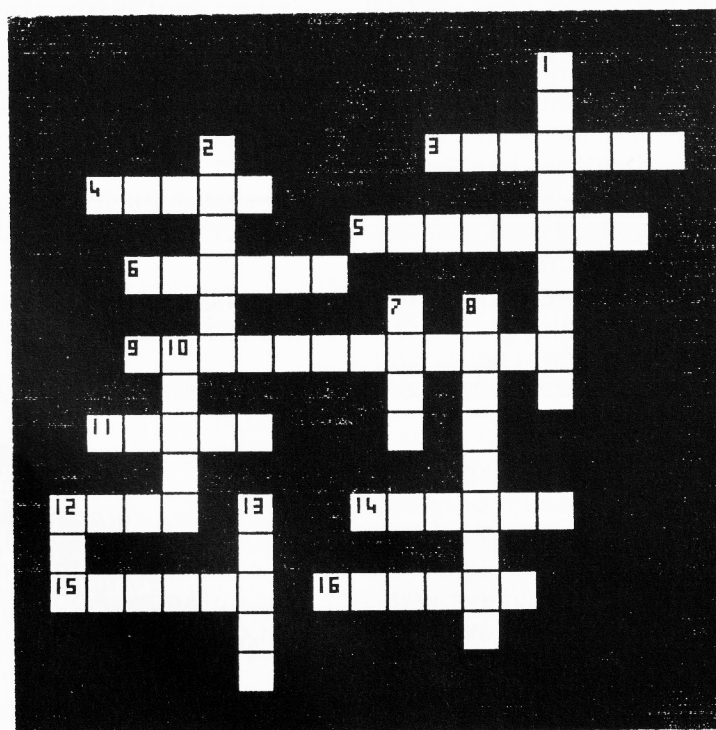
East Cork Teachers' Computer Group

Tomás O Gormáin
Chairperson of ECTCG

Background

East Cork Teachers' Computer Group was founded in 1988 by a group of primary teachers who were anxious to promote IT in the primary schools in their area. Teachers' knowledge of IT at that time was confined to whatever information had been absorbed during a one week in-service course in the summer holidays. Some teachers had no computers in their schools and without regular hands-on experience, whatever skills they acquired were soon forgotten. It was at a Department of Education one-day in-service course that the need for a forum where teachers could exchange information and ideas about IT was discussed; arrangements were made to hold an open meeting at St Mary's Convent School, Carrigtwohill, County Cork. Unlike most schools in the area, St Mary's has a network of 15 BBC Masters and a growing collection of Archimedes A3000s which had made it an ideal location for the successful summer vacation courses and made it the obvious place for our first meeting. The Céad Míle Fáilte extended to the group by the good sisters and the enthusiastic response of the nuns to the setting up of the group were two further reasons for this choice of venue.

Setting up

Thirty-four enthusiastic teachers came to the inaugural meeting; officers and committee members were elected and so ECTCG was born. ECTCG is organised as a self-help IT study group for primary teachers where members contribute financially towards the upkeep of the group. Workshop sessions similar to those at MAPE Conferences are held fortnightly at St Mary's. These practical workshops, covering both hardware and software, last for two hours and the group leaders change from meeting to meeting as various aspects of IT are investigated.

The aims of the group were formulated in those early months and can be summarised as follows:

- to help our members become familiar with both the hardware and the software;

- to cater for all levels of expertise among members;
- to develop the methodology of using the computer as an effective teaching aid in the classroom;
- to provide a forum for the exchange of information and expertise on all aspects of IT.

An important consideration was that ECTCG should not become the preserve of a few 'buffs' discussing technical niceties in jargon unintelligible to the less privileged!

Although we were unaware of it at the time, we realise now that our aims are very similar to those of MAPE.

Group organisation

Members of the group ranged from those whose schools were well equipped with IT to those whose only knowledge of IT in the classroom had been gleaned from glossy brochures. If we were to achieve our aim of catering for all levels of expertise, it was important that members were grouped appropriately for workshop activities, the simplest and most obvious way being to divide them into beginners and experienced users.

Not surprisingly, the beginners' group was by far the larger, with about 25 members. They were accommodated on the network and introduced to the complexities of *Granny's Garden, Concept Writer, Locks* and *Turtle Graphics*; the experienced group chose to delve into *Edword, Stylus, Folio, Logo, DIY Database*, adventures, simulations and reinforcement software.

Our first members came almost exclusively from rural schools with between three and six teachers. Initially, most of these schools had no computers and so headteachers directed their energies towards acquiring them; group members helped one another with ideas for fundraising and with advice on hardware and software. There is no financial provision by either the government or local authorities for the purchase of computers in Irish primary schools and little or no recognition is given to IT in the curriculum. However, this situation is expected to change in the near future with the publication of a Green Paper on education.

Discussion sessions on various aspects of IT in the classroom were held regularly and the participation of Seán Ó Floinn, Inspector with the Department of Education, helped to give the group direction and encouragement during that first year.

ECTCG increased in numerical strength, and during the school year 1989/90, 65 teachers attended group activities. In addition to the 'structured' activities, we held occasional 'free nights', when teachers with specific problems sought advice or assistance from more know-ledgeable group colleagues and these sessions have continued to be popular. A charge of £5.00 per term was made to pay for the facilities and to provide tea, coffee and biscuits which helped to develop the social aspects of the group.

New members from Cork City schools added a new dimension to our meetings and, under the guidance of Directors Dónal Kerins, Luke McAuliffe, Seán Ó Meachair and Sr. Madeline Griffin, activity intensified. Tasks were set, assignments completed and reports were produced in workshop-like sessions. Group activities achieved a better sense of direction and organisation improved.

With our increased and more diverse member-ship, we felt the time was ripe to ask members to complete a detailed questionnaire so that future activities could be more closely targeted. The results indicated that we should operate on three levels, corresponding broadly to junior, middle and senior levels in the primary school. Based on these findings we devised a programme of workshops including:

- a study of word processing and of software to suit the various school grades;
- the development of a scheme of work for Logo suited to different age levels;
- the evaluation of simulation software and the display of class projects;
- an examination of available databases and of their usefulness in the primary school;
- the evaluation of reinforcement software.

The regular discussions on these and other topics were considered one of the most beneficial aspects of group membership. Whilst any teacher with a program and manual can in time master the intricacies of a particular piece of software, regular exchange of views and the experiences of those who have used a program in the classroom are invaluable.

As familiarity and IT competence gradually increased our directors decided that, if this enthusiasm were to be maintained and full advantage taken of the human resources at our disposal, our energies should be channelled into a project which would be both challenging and beneficial to us and to colleagues throughout the country.

Our Logo project

Logo was the popular choice of members for in-depth study and so, in the absence of an official government policy on IT in our primary schools, we decided to try and bridge the gap by producing a scheme of work for turtle graphics. We planned to cater in particular for the many teachers who had only a rudimentary knowledge of computers, by producing a beginner's guide which would also suggest a framework for further work.

Logo study groups were organised; theories and suggestions were tested by members in their classrooms. The results of projects were tabulated and group leaders were assigned to coordinate the research and recode the designs in a suitable format. Our editor, Dónal Kerins, entered the final draft on the Archimedes using *Pipedream 4* for text and *!Draw* for the diagrams.

A bilingual approach

As much of the work in Irish classrooms is carried out in both Irish (or Gaelic) and English, it was natural that the guide should be written in both languages. This approach has been most effective in demonstrating to our teachers that it has been written especially for them.

The title chosen for our booklet was *Logo Ar Scoil – Logo in the classroom*. When the final document, including the title page, introduc-tions and acknowledgements, was transferred by Vincent Unsworth-Mitchell, our technical expert, to the DTP package *Ovation*, our work was almost complete. A couple of late nights were spent proofreading text and debugging programs, an appropriate cover was decided upon in consultation with the printers, and early in December 1991 our production was ready for printing.

The launch

Our launch at St Mary's on 17 December 1991 was attended by a large audience of teachers and other educationalists together with local dig-nitaries, representatives of the Department of Education and headteachers of the schools from which membership of the group is drawn. Following a talk on *The place of IT in the*

Figure 1 *The East Cork Teachers' Computer Group at the launch of 'Logo Ar Scoil'.*

Classroom by Professor Noel O'Connell, Head of the Education Department at Limerick Teacher Training College, our Chairperson Tomás Ó Gormáin presented the first copies of *Logo Ar Scoil* to the guests.

Publishing a work of this nature is a costly exercise so we enlisted the assistance of our friendly local Credit Union Manager, borrowing the entire sum required for the publication. Our guarantors undertook to repay the money within six months, but at the time of writing, the debt has been practically repaid after only four months. With half the booklets sold, the remaining income will enable us to arrange further group activities, to purchase software and to remunerate our hosts, St Mary's, for their upkeep of the Centre. *Logo Ar Scoil* retails at £4.00, which includes postage and packaging, and is available from our Centre.

The MAPE connection

MAPE software is very popular with teachers in Ireland and I know many who have been introduced to IT through simple introductory packages such as *Concept Writer, Stylus, The MAPE Compendium* and *The Magic Telephone*. Our Inspector, Seán Ó Floinn, is a regular visitor to MAPE Conferences and his active promotion of IT in Cork has been a major

contributor to the success of our group. Other ECTCG members have belonged to MAPE for a number of years.

In the past, currency problems with subscriptions have mitigated against Irish membership of MAPE but happily these have now been resolved (see Eire regional news on page 31). In the early days of trying to overcome these problems, I contacted the MAPE Ireland representative, Pete Young, in Belfast. In the true spirit of MAPE, Pete was the essence of cordiality and encouragement and one of his suggestions was that we send a delegate to the MAPE Conference '92 in Bangor. Unable to choose just one member to go, four of us eventually made the trip!

Our aims were:

● to note recent developments and learn from our colleagues in MAPE, all of whom have been in the business longer than most of us;
● to investigate the possibility of setting up a MAPE region in our area with obvious benefits for both ECTCG and MAPE.

The four of us travelled 175 miles from Cork by car, took the ferry from Dublin to Holyhead, and then completed the journey to Y Coleg Normal in Bangor. We then set about planning our conference timetables so that between us, we covered as many of the activities as possible. As we are not subject to a National Curriculum,

attendance at the workshops and presentations seemed the most advantageous option, although we regretted losing out on the themes.

I shall not go into the Conference in any detail; suffice it to say that we were all highly impressed and delighted to have been part of such a fruitful and beneficial weekend. The friendly atmosphere and the professional approach of MAPE personnel convinced us that our proposed liaison would bring huge benefits to us and perhaps to MAPE as well. Both our aims had been achieved and when our MAPE region is organised, we hope to extend a Céad Míle Fáilte to some leading lights from MAPE. Special thanks are due to Pete Young, Betty Lumley, Yvonne Peers, Chris Robson, Val Siviter, Keith Whiting and Chairperson Senga Whiteman for the help they have given to me and to our new MAPE representative for the Republic of Ireland, Luke McAuliffe.

We would ask all MAPE members in the Republic to contact us early in the new school year so that a regional gathering can be arranged as soon as possible. An interim MAPE Committee has already been formed and we hope to elect a more widely based Committee at the meeting.

Future development

Becoming a MAPE group will undoubtedly have an important bearing on the direction ECTCG will take in the coming years; our proposed collaboration has already given us a timely international dimension in the year of Europe '92. As we continue to cater for all our members, I would hope and expect that some of our group will become involved with MAPE projects; there is, for example, much work to be done on the development of Irish language programs.

One of the strengths of ECTCG is that it is composed of practising teachers who meet regularly throughout the school year to help each other become proficient in the application of IT in the classroom. I believe that this membership gives us an ideal platform from which to make a valuable contribution to IT in education and feel sure that, through our collaboration with MAPE, we can extend and improve our contribution.

Musical interlude (1): Hitting the right note

Simon Hill
Northaw School

Why is music so sadly neglected in IT, especially in many prep schools? It probably has something to do with the way that the average prep school head teacher nearly always hands over the computers to the heads of Maths or Science, not necessarily the most musical members of the staff. If any other departments wish to make use of IT facilities, it is usually the English staff who want to do some DTP, or someone in the Geography department who has heard about databases. There are many other possible reasons for music to be pushed to the bottom of the list of IT priorities (if it is seen as a priority at all), including the persistent idea that you cannot do anything musical unless you have an Atari ST.

As a non-musician myself, I feel that this is a pity. Using good sound-generating software is surely as valid for music as using a word processor is for English. If we look at the National Curriculum's Programme of Study for Key Stage 2, it clearly states that pupils should be taught to 'use information technology to organise ideas in written, pictorial, symbolic and *aural* forms' and to 'work together to prepare and present stored information using information technology.' These objectives apply as well to music software as to databases or spreadsheets.

As for the music software currently available for the BBC B and the A3000, there is plenty of it and it is reasonably priced. My all-time favourite must be Andy Pierson's *Compose*, a delightful package originally produced by ITMA. It enables children to write simple music with the aid of 'tune files', short sequences of notes represented by small pictures. A highly visual program, *Compose* is also very flexible

and comes with eight tune files, ranging from China to Ancient Egypt! There are also facilities within the program to create your own tune files. For children in the 6–12 age range, *Compose* is a very popular piece of music software and our Head of Music at Northaw likes it too. An enhanced version of *Compose* for the A3000 is also available.

AUCBE's *Opus* is less visual than *Compose* and its system for recording the notes is more like conventional notation. Different sound 'envelopes' are available and the user can have three notes at once as a chord, unlike *Compose*. The *Opus* program makes use of 'cards', the main blocks or parts of one's composition. Having worked on each one in turn, the maximum being 12 cards altogether, the cards can then be arranged in any order. To a musical amateur like me, in some ways this seems to be quite a faithful imitation of the way in which larger pieces of music are really written. *Opus* also allows sharps and flats, together with the facility to transpose and invert the whole score or only part of it. Three impressive sample files are provided. The *Opus* manual is clear and helpful. Overall it is an excellent program and relatively easy to use. Although it lacks visual appeal, *Opus* can nevertheless generate a lot of musical fun for slightly older pupils (perhaps 10–13 year-olds).

Logophiles (and I am one) will enjoy using AUCBE's other music-making software, *Logosounds*. This is not for the newcomer to Logo, as a good basic knowledge of Logo is needed if you want to make the most of this program, and your BBC B must have a Logotron chip installed. Not only are chords possible with this piece of software, but also a fourth sound channel is available for percussion and 'special effects'. 'Blow the man down', a sample file that comes on the disc, is accompanied by the roar of the waves! In short, *Logosounds* tries to turn your humble Beeb into a sophisticated sythesiser and it almost succeeds. The Beeb's tiny speaker does not really do justice to the program and, having loaded up all of those extra Logo primitives, there is not much spare memory left. When using this program with children of prep school age, *Logosounds*'s lack of graphics makes it less attractive for the younger ones. It is nevertheless an excellent and interesting piece of software.

My final selection for the BBC B is not a 'composition' program, but something to help with your sight reading: Chalksoft's *Note Invaders*. Notes travel across the stave and pressing the correct key for that note fires a rocket! As well as the treble and bass clef option, there are three levels of difficulty. Notes are also shown on the screen with the correct accompanying sound. The 'leger' lines are

explained too. If one is going to have 'drill and practice' programs, then perhaps one should at least make sure that they are entertaining; my pupils tell me that *Note Invaders* takes some of the pain out of Music Theory exams.

For the A3000 and Archimedes range, Clare's *Rhapsody* and Longman Logotron's *Notate* are superb and pick up where *!Maestro* leaves off. Writing music with a micro and using the conventional notation becomes as easy as word processing. Notes can be moved about, erased or copied at will. Scores can be composed, amended and printed out. I doubt whether many children will fully come to grips with *Rhapsody*, the more sophisticated program, but I am sure that many music teachers will find it fascinating. Part of the *Rhapsody* package called *!VoxSynth* allows the user to change the harmonics, amplitude and pitch of an individual instrument, so that you can play Handel on a harpsichord or on a drainpipe! The Atari is meant to be the 'best' computer for music-making, but I am sure that the A3000 and *Rhapsody* are as good if not better.

Notate, produced by Longman Logotron, is similar in some ways to *Rhapsody*, but is designed to be easier to use. Incorporating 'buttons' that resemble those on a tape-recorder helps to make things simpler, but it is nevertheless a very powerful and flexible piece of music software. I have not had much experience of using *Notate* with children, but it received many recommendations from teachers at this year's MAPE Conference. I intend to send for my copy soon!

Happy micro music-making!

Further information

Compose (BBC) and *Compose World* (Archimedes): ESP, Holly Tree Cottage, Main Street, Strelley Village, Nottingham NG8 6PD.

Opus (BBC): The Advisory Unit, Endymion Road, Hatfield, Hertfordshire AL10 8AU.

Logosounds: Contact the Advisory Unit for further information.

Note Invaders (BBC and Archimedes): Chalksoft Ltd, PO Box 49, Spalding, Lincs PE11 1NZ.

!Maestro (Archimedes): supplied free on the Archimedes applications disc.

Rhapsody (Archimedes): Clare's Micro Supplies, 98 Middlewich Road, Rudheath, Northwich, Cheshire CW9 7DA.

Notate (Archimedes): Longman Logotron, 124 Cambridge Science Park, Milton Road, Cambridge CB4 4ZS.

Editor's note: I would like to include similar articles, reviewing music software for the RM Nimbus or for other machines, in future issues. If you feel you could contribute such an article, please contact me.

Musical interlude (2): We've got *Rhythm!... Box!*

Chris Naughton
University of Exeter, School of Education

The Electromusic Research program *Rhythm Box* was one of the first music programs available for the Acorn A3000. My initial impressions of the program (version 2) were a little guarded. It was a good program for me, but would the children be able to use it? However, having worked for the past term with children from Ladysmith Middle School, Exeter, I'm beginning to see positive ways in which it can be used.

Notes are entered onto a grid; the notes can either be non-pitched percussion sounds selected from a menu at the side, or pitched sounds specified by a 'keyboard' at the bottom of the screen. The choice of bar to be played is entered in the 'composition' window together with the number of repeats required; there are also functions for copying a bar and transposing (moving the notes up or down in pitch).

I decided to try the program with a Year 4 class of eight and nine year-olds who had little experience in the use of the computer in music. My intention was to see how well ideas from music lessons could be transferred to the computer, thus integrating IT into the music curriculum.

I began by letting the children experiment and asked them, in groups of three, simply to design a pattern. Not unexpectedly, their first designs were very dense and quite cacophonous! Subsequent work obviously needed structuring so that the children's compositions made sense musically.

My first objective was to create a backing beat for a piece of music. The tempo was slowed down and four beats were created, in blocks of four. By doing this I hoped to emphasise that the first stage in creating a satisfying piece of music was a strong rhythm.

```
1        2        3        4
-        -        -        -
```

Gradually, other elements were added, creating some interesting one-line patterns; for example:

```
1        2        3        4
- - - Z - Z - Z - - Z Z - - - -
```

When speeded up, this rhythm created a good backing track; by adding other rhythms to this pattern we had the backing for a rap.

The next stage was to incorporate the pitch element and, at the same time, to link this work to other activities. As the class were studying the Tudors, I took each of the monarchs of the time and gave the children a grid on which to place the names. The grid was sixteen boxes long and three boxes high; this fitted the rhythm box grid in length and also provided the opportunity to work at three pitches.

Using the rhythmic knowledge the children had already acquired, we now considered the rhythmical elements in the names:

```
1          2           3         4
Hen-ry     Ed-ward     Mar-y     E-liz-a-beth
-          -           -         -
```

The accents indicate the four strong beats, with shorter notes in between.

I asked the children to see if they could compose a piece away from the computer, using different combinations of the notes C, E and G for each of the monarchs. Many of them were successful in writing their pieces and playing them back to the class so we proceeded to try and realise these on the computer.

Initially, the children encountered two problems. Firstly, the screen keyboard has four octaves and the children found it difficult to locate the notes with which they were working; a 'zoom' facility would have helped. Secondly, unlike the glockenspiel and xylophone, the screen keyboard has no note names printed on it, so the children had to remember the notes. However, once they had overcome these difficulties, most were able to create a bar of their own using a pitched percussion instrument to help them and then to enter the notes on the computer.

I used a worksheet to introduce them to the

copying facility of the program so that they could give their compositions a contrasting middle section. Bar one was copied twice so that we had three identical bars; the second of these was then altered by omitting or changing notes or altering the rhythm, so that it became a middle section. This gave the children ample opportunity to experiment within a given framework.

The results were interesting and the use of the computer opened up new musical possibilities. For example, the computer could be used as both a compositional tool and a backing instrument by playing a prepared instrumental backing whilst the children entered their ideas over the top. To try this out I taught the children a song and when they had learnt the accompaniment, asked them to improvise using just three notes at first. They then added others to build up a piece of music. This work is still in progress but the signs are promising; I am confident that work with the program can be incorporated into music and other classroom activities, provided that the tasks set are appropriate to the children's development in both musical and IT skills.

Very often, teachers' response to music software is that the program looks interesting but the computer sounds terrible! The sounds which the A3000 produce are, however, quite clear, so by linking the headphone socket on the rear of the computer to a suitable means of amplification (in our case a radio cassette recorder), the sounds can be appreciated by a wider audience than the 'operator'. The children can then use the computer as the accompaniment to their work in singing, dancing or drama. It is also possible to record sounds directly onto tape; ideally a four track tape machine should be used so that the computer can produce some instrumental parts whole the children can play in others, and sing parts in harmony on the other tracks.

My concern when using the computer for music is to enable children to create sounds without first having to leap yet another 'literacy' barrier. There are a number of musical notation programs on the market which may well fulfil the aims of the National Curriculum but whose operation is too complex for primary school children. *Rhythm Box* is remarkably good value and I can strongly recommend it to any teachers who want to incorporate IT into their music lessons.

Program information

Rhythm box (A3000) is produced by Electro-music Research (EMR), 14, Mount Close, Wickford, Essex, SS11 8HG, tel: 0702 335747. The program is supplied with a comprehensive library of sounds but an even wider range is available on the additional Creations disc.

Building Information Technology capability

Keith Hemsley
National Council for Educational Technology

The National Council for Education Technology (NCET) has two main aims:

- to promote the effective application of established and proven technologies;
- to monitor new technologies and systems as they evolve and evaluate them, for their potential for enhancing both the process of learning and its management.

In common with many other educational organisations NCET has undergone a number of changes in recent months. The working structure has been modified and readers who are familiar with NCET's work in the past may find an outline of the new structure helpful:

Personnel are now working in six different 'programmes':

Programme 1: Evaluating and developing emerging educational technologies
Programme 2: Improving access to learning – students with special educational needs
Programme 3: Developing the IT curriculum
Programme 4: Developing the competence of teachers and trainers in applying educational technology

Programme 5: Applying Information
    Technology to the management of learning
Programme 6: Evaluating the contribution of
    educational technology to the processes of
    learning.
    *(Taken from NCET's recently published
    Medium Term Plan, 1992–1995)*

In the article which follows, Keith Hemsley
outlines some of the materials which will be
produced as part of Programme 3: Developing
the IT Curriculum. *Editor.*

During the next year, we shall be producing a set
of materials under the collective title of *Building
IT Capability*. The bulk of these materials will
be sent, free of charge, to all primary schools in
England, Wales and Northern Ireland (LEA,
GM and Independent) and teacher education
establishments between September 1992 and
March 1993. They are in a form which will make
them easy to photocopy and insert into the AT5
section of the National Curriculum Technology
folder.

The core of the materials is a set of six informa-
tion sheets; the first one gives an overview of IT
capability in the National Curriculum; each of the
other five gives a more detailed explanation of
one strand of IT capability. In addition, there will
be a number of information sheets and booklets
whose purpose is to demystify the statements of
attainment and provide help in recognising and
assessing children's IT capability.

These materials, addressed to the IT co-
ordinator, will be sent in three parts. The first
will be arriving in schools at the end of
September, the second in mid January 1993 and
the third at the end of March.

The first mailing consists of four items:

Towards IT Capability at Key Stage 1 and 2 gives
an overview of IT capability as it is defined in the
National Curriculum. Each of the five strands of
IT capability is explained in simple terms with
reference to the national curriculum and illus-
trated by classroom examples. A selective reading

list is provided to aid further enquiry. *Modelling
at Key Stage 1 and 2* explains what this means in
an information technology context, pinpoints the
essential features of modelling activities and
offers suggestions for pre-modelling classroom
activities which will prepare children to use
computer models. Classroom examples are given
to help in the assessment of modelling.

Understanding the jargon gives non-specialist
explanations for the computer-related terms
used in the National Curriculum and other terms
which the teacher is likely to encounter in
relation to information technology.

The Strands of IT Capability elaborates on the
statements of attainment for Information
Technology. Its purpose is to enable the teacher
to ensure continuity and progression through
the levels by giving simple examples what
children should be able to achieve.

The second mailing, in January 1993, will
consist of two further IT Capability Information
sheets on *Measurement and Control* and *Appli-
cations and Effects*. It will also include *The IT
Capable Child*, a set of pupil profiles describing
what to look for in children at various stages of
development of IT capability. Two further
curriculum information sheets, on *IT in primary
Maths* and *IT in primary Technology* will
supplement those on Science, English,
Geography and History which schools received
in March of this year.

The third mailing, in March 1993, will include
the final two IT Capability Information sheets
on *Communicating Information* and *Handling
Information*. These will be accompanied by two
publications, *Your child and Information
Technology*, aimed at parents, and *The IT
Capable School*, aimed at school governors,
explaining the role of Information Technology
in the National Curriculum and beyond.

Editor's note: A review of Assessing IT Capabil-
ity, published by NCET, appears in the reviews
section, on page 28 of this issue.

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looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back

10 years ago . . .
'We do not use computers because we are bewitched by the technology. We use them, with discretion, because we have seen what happens when children interact with the right software.'

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10 years ago . . .
'How the micro will be used depends a great deal upon the training teachers receive in the next two years. If the training is inadequate, then this sophisticated piece of high technology, with its enormous potential for development by the teaching profession, could be reduced to an electronic blackboard . . .'

looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back looking back

Postbag

Dear Chris . . .

Software copyright

I have just received the latest issue of *MICRO-SCOPE* and I was delighted to see the article regarding software copyright. It is becoming more noticeable to us that a responsible attitude is reaching down from the top in many areas. Please keep up the education process as I feel sure that this is the right approach.

In order to help teachers evaluate expensive programs before committing themselves, we offer two types of service:

1. Fully working demonstrations of several programs are available. These do everything except save and even have some limited print facilities.
2. We provide a full evaluation service on all software. All we require is an official order stating which software is required and the words EVALUATION COPY imprinted boldly on the order. The school then has 30 days to decide whether or not to keep it.

Can I also ask through *MICRO-SCOPE* for any teachers who have written or are writing software for the Acorn Archimedes to contact me with a view to publishing. As Acorn are primarily in the education market we feel that it makes sense to use the wealth of expertise that teachers have in the IT arena. Some of our best-selling programs have been written by teachers in their spare time. We will provide technical and moral support for anyone that we feel has a worthwhile project.

Dave Clare
Clares Micro Supplies
98 Middlewich Road, Rudheath, Northwich,
Cheshire CW9 7DA; Tel: 0606 48511

Editor's note: Several companies are now offering software evaluation facilities, sending either demonstration versions or complete packages for a fixed term evaluation period. Although *MICRO-SCOPE* does not currently print straightforward advertising material, I would be pleased to include a list of companies offering a software evaluation service for teachers in our next issue if software publishers would like to send me the information.

Alternative sources of software and word puzzles for the Archimedes

Following Chris Taylor's article about alternative sources of software in *MICRO-SCOPE 36*, I received a disc from Des Thomas containing a useful little program called *DrawCross*. This converts a crossword which has been created as a text file into a crossword which can be saved as a Drawfile. It is a public domain program, available from Peter Sykes, APDL (the Archimedes Public Domain Library), 96 Lanehouse Road, Thornaby, Cleveland TS17 8EA.

Doug Weller has sent the following information about *!Spellword*, a 'CareWare' program from Norwich Computer Services, and *CrossStar*, a crossword puzzle solver from David Pilling.

!Spellword by Janet and John Ansell is a 'Careware' word processor. Careware is software where, if users find the program useful, they are asked to make a donation to a charity, usually specified. However, the authors have stated that no contribution to charity is expected from schools. As a word processor it is very basic. It uses the system font, doesn't accept graphics, won't move text or check your spelling. It's not even multitasking! But, it has two great advantages. First, it's free. More importantly, it offers a facility not offered by more sophisticated programs.

When loaded, it takes over your screen. The bottom half displays seven lines of text in 40-column mode (the program will accept 100 lines). The top half is a dictionary including the words in *Breakthrough to Literacy* plus other words. The first page is the alphabet, punctuation and the most common Breakthrough words. These can be transferred to the writing area simply by pointing at a letter, punctuation mark or word and pressing select, which transfers it to the writing area. Clicking menu on a letter takes you to a page with all the words beginning with that letter. These again can be moved to the writing area by pressing the select button; if you can't find the ending you want (eg if you find 'make' and want 'made') press on the middle button again! Of course, the option of typing in words at the keyboard is always available. The dictionary is kept in text form and full instructions are provided for tailoring dictionaries to various age and ability groups or of course for special projects.

If you want this program, it is available on CareWare Disc 8, which costs £6 from Norwich Computer Services, 96a Vauxhall Street, Norwich NR2 2SD (or get your computer centre to buy it and get a copy from them!). The disc also includes a 256 colour art package, two types of Patience and other goodies.

CrossStar was designed as a crossword puzzle solver, allowing the user to type in the grid, enter some words or letters, select an area and use one of the two dictionaries (the largest containing about 140,000 words), or a user-created dictionary, to find possible solutions. For the busy teacher, it is a handy and simple way of creating either crosswords or wordsearches for children, which can be saved as *Draw* files and printed out either with or without editing. It costs only £5.99 and comes from David Pilling, PO Box 22, Thornton Cleveleys, Blackpool RY5 1LR. (Get his catalogue – his *!Spark* or *!ArcFS* for £5.99 each will let you get twice as many sprites on each disc!)

Doug Weller

More thoughts about keyboard skills

Peter Hampson's article about keyboard skills, *Primary Problems* (*MICRO-SCOPE 35*), prompted Carol Lancaster and Sheila Wilson to respond as follows:

Some thoughts on keyboard skills
Over the years I have had many discussions with colleagues, both primary and secondary, about the teaching of keyboard skills. At times things have got a little heated as people do seem to hold very strong views on this, myself included. As Peter Hampson commented in his article (*MICRO-SCOPE 35*), 'Wouldn't it be dreadful if we were doing something terriby wrong.' This made me stop and think, panic slightly and then decide to share my thoughts to see if I still felt the same.

If I start with the youngest children who now have access to computers, I would hope that most of the programs that these children use require a mouse or concept keyboard, or the software is carefully written to avoid the need to know where those capital letter keys are. At what age or stage would you start to show the children which fingers to use? If we liken this to what age or stage children should be shown how to form their letters correctly then I don't know the answer. When I ran a playgroup, a few years ago now, I used to watch the three-year-olds drawing and painting. They often included letter shapes in what they were creating or 'wrote' a story; the way they made the letters was their own. You could not stop a child of this age and say 'don't do your letter "d" like that', as you would be wasting your time and also interfering in the child's creative world. So, doesn't the same apply to keyboard skills? To catch the children sufficiently early would have to be at a time when it would spoil the activity they were doing. I do think however that young children can be encouraged to use two hands at the keyboard when the time is appropriate.

Many children have computers at home now and maybe it's those games that are encouraging the use of only a few fingers; I think it is more likely that the home time on a keyboard is where the habits are forming. There must be very few children who have any large amount of time on a computer at primary school; as I go round schools I am always hearing 'we need more than one computer in our classroom', and that is usually from those who are lucky enough to have one in their room all the time.

So when will we teach those keyboard skills if we have to? I have talked to secondary colleagues and some have a system where the children spend a six-week block of time learning how to type. They thoroughly enjoy doing it, (some even do it to music), and become quite proficient. This is the answer, I thought, until I heard that in six months' time, many do not have regular access to a keyboard. Some of these pupils will always remember a little of what they have learnt about which fingers to use, but for others it is as if they had never learnt. If we adopted this method in primary schools, when would

we fit it in and what about the other much more exciting computer experiences we would rather these children were having? HMI commented on keyboard skills in their *Curriculum Matters, Information Technology from 5 to 16* (the raspberry ripple series); they felt that 'a systematic approach to the acquisition of keyboard familiarity is necessary: children should undertake brief, structured practice using a suitable software package immediately before they start on a major writing task'. Has anyone tried this?

A few years ago, when students were leaving the sixth form having had little opportunity to use computers, I followed with great interest a debate between my two daughters who wished they could use a keyboard properly. They decided in their last year of school to go to evening classes and learn to 'do IT' properly. I have to add here that they came home from the class each week very bored and not sure if this was the way to 'do IT'. They both passed their typing exams with flying colours, but I am not sure how as they never did any practice! But it is a delight to watch them now when they are wordprocessing their essays for college; they are so fast and accurate. Perhaps this is the time to learn those keyboard skills.

I think in reality that we need to be constantly reviewing what happens with computers at all levels of education, as we do in all areas of teaching and learning. It may be that, when laptops become cheap enough for us to have many in each classroom, we shall be able to afford the keyboard time. I think many Key Stage One teachers would have the answer to the keyboard skills issue – 'let the children do a keyboard Standard Assessment Task' – it would have to be on replica cardboard keyboards so that the whole class could have a go all together, but that wouldn't matter! – only JOKING.
Next debate . . . SPELL CHECKERS?

Carol Lancaster
Advisory Teacher for IT, Northants

When children learn to play a musical instrument, we do not question the need to learn the correct fingering. Learning incorrect fingering is not only inefficient, it presents the learner with the enormous problem of undoing bad habits. However, this still leaves the question of when such teaching should begin. It seems to me that during their junior school years most children will have acquired both the manual dexterity and the cognitive skills they need to learn to type. If I were teaching in a school with a junior department, I would hope to be allowed to offer keyboarding at least as a club activity.

Many people working in industry use inefficient typing skills but do not feel they have the time to change. As good primary practice involves encouraging children to aim for the best, role modelling is important throughout the primary years of schooling. I wonder if the DES has considered the importance of giving *teachers* keyboarding skills? Mine were learnt at an evening class and are very meagre. However they are sufficient for the infants I teach to notice that I am not hunting and pecking with two

fingers and that my typing is faster as a consequence. Some of them have on a number of occasions pointed this out to me, and I have told them that it is a skill that they should aim to acquire as soon as they are old enough.

If, using Peter's words, we feel that 'we are at fault' . . . bearing in mind that some people currently working in industry do not have the vision to learn key-boarding skills . . . perhaps we could start by suggesting that keyboarding skills for teachers are included in our own school's Review and Development Policy.

Sheila Wilson
Albanwood Infant School, Watford

Software reviews

Unusually we begin with two reviews of the same program: Sherston's *Arcventure*. This program is discussed first by Doug Weller, one of our regular reviewers; the second review is by Henry Rhodes who, when he wrote this piece, was a pupil in Simon Hill's Year 4 class at Northaw School. Simon is another of our regular contributors and you can read his comparison of several music programs in Musical Interlude (page 20).

Title: **Arcventure**
Publisher: Sherston Software, Swan Barton,
   Sherston, Malmesbury,
   Wilts SN16 0LH.
Machine: Archimedes
Price: £29.95

Arcventure from Sherston Software is a history simulation/graphics adventure game for the Archimedes. It takes children on a simulated dig of an actual Roman villa and, to find out more about the artefacts they uncover, on a time travel visit to the original villa and the nearby town of Corinium, modern-day Cirencester – perfect for key stage 2's unit on 'The Invaders', and the key stage 3 unit 'The Roman Empire'.

When children enter the program they are asked if they want to be a boy or a girl and to enter a name. After being given instructions on using the program, they are shown a screen displaying an archaeological dig, with a choice of tools (spade, trowel, brush and magnifying glass). They then choose a tool and the area they want to excavate and a small figure on the screen starts digging. If they find an object, it is displayed on the screen. Of course, after about 1800 years most of them show their age and are displayed as they would look when excavated! A clever option here is the ability to get the computer to reconstruct the object in its original form.

The children have 14 days to complete the dig. During this time they will find three mystery objects, and to find out what they are they travel back in time to the original villa and town. They travel around the villa and town, meeting and talking to various people. To find out what the object is they have to complete various tasks which must be finished before they return to the dig.

At the end of every day they go to the digging hut, where they can review their finds. They can look at the reconstructions again and ask the computer for information about each find. They can also take notes in a 'journal'; these notes are stored in a text file and can later be used in a word processor, *!Draw*, etc. At the end of the 14 days they get an accumulated point score for the number of items found, correct tools used, and questions answered, as well as a certificate of completion.

I used this program with children in my Year 4 class (8–9 year-olds) during a topic on The Invaders. The children who used it thought it was great, and were able to relate what they were doing to their other topic work. I'm convinced that it enriched their learning, but I did have a couple of niggles. One was that they were working in groups of three with a made-up name, and the certificate was printed out in that name. The other was that if they made a mistake in the visit to the past they couldn't always recover and get back to the excavation. An option for the teacher to escape the past would have been extremely useful. I also felt that it took too long to solve the adventure puzzles compared to the learning involved.

Having said this, I still found it a very useful program. It is best suited for upper juniors or lower secondary (which is the age range aimed at by Sherston), but my better 8–9 year-olds had no problems with it.

Sherston have thought carefully about this program. Each of the artefacts is kept as a separate sprite or draw file for use in other programs, including a magnificent file of the mosaic which I printed out for every child. This, combined with the journal, enables children to do an illustrated published report, and also to use the artefacts as illustrations for other topic work.

The notes are also excellent. Besides extensive notes on the program, there is a good topic web, and a very good section on archaeology (including archaeology in schools and some useful addresses), written by Cornwall's Sites and Monuments Record Officer.

Doug Weller

In this highly informative simulation, a pupil can step into the place of an archaeologist digging for fourteen days on the site of a newly-found Roman villa in the Roman town of Corinium. Realism is added with the choice of four different digging tools. If the wrong digging tool is used, the object in the ground could be broken.

When an object is discovered, it can be taken back to the information hut, where the ever-helpful database will tell you what the object is and what it was used for. A very good 'reconstruction' option rebuilds the object to what it would have looked like in Roman times. Occasionally the computer finds an object it does not have in its database and sends you back to Roman times to discover what this mystery object is. You then go back in time to the Roman villa you were digging up! I find this part of the program can be a little tedious. In the villa and the grounds surrounding Corinium you can explore, talk to characters you meet, ask them questions, buy objects (using Roman currency) and pick up objects.

This simulation has taught me how archaeologists work and told me a great deal about Roman everyday life, Roman entertainments and what the objects looked like. I would recommend *Arcventure* to computer teachers and history teachers. It is very good for a group of children. It is a very useful educational program to support a topic about Archaeology or Roman Britain, and children will enjoy using it both in and out of lessons. The simulation also comes with a wealth of maps of Corinium and the countryside around it, as well as sheets telling you about the people you are likely meet, their names and their occupations. Overall this is a very good educational program.

Henry Rhodes
Northaw School

Title: **Assessing IT!** – curriculum materials for Key
    Stages 1 & 2, including software files for the BBC
    and Nimbus
Publisher: NCET, University of Warwick Science
    Park, Sir William Lyons Road, Coventry
    CV4 7EZ; Tel: 0203 416994
Price: £15.00

A few days ago one of those ominous brown packages was delivered to school. Not more National Curriculum material to read and inwardly digest, I thought! It was filed in the 'open when I've got time' tray and left for a spare moment. A few days later I remembered where it was and decided to take a look. On opening the package I was pleasantly surprised! It was a package from the county's Adviser for Information Technology, containing a copy of NCET's pack on assessing IT and a plea for some feedback on its use in school.

Contained in the material is a series of ideas booklets, help cards and concept keyboard overlays, an introductory booklet, a poster and a selection of discs thoughtfully presented in a folder. The introductory booklet describes how to use the pack and

details assessment opportunities. It draws attention to the five strands of IT as contained in the non-statutory guidance of the National Curriculum Technology Order and gives an overview of the requirements for attainment target 5. There is a useful section on managing and planning IT, giving information and guidance on how to assess children's IT capability, and ideas for recording pupil progress. The pack focuses in particular on the IT strands of handling information and measurement and control. Each of the curriculum ideas booklets has a different starting point; *Jim and the Beanstalk, Starting from the Washing Basket* and *Starting from Musical Instruments* are concerned with handling information; *Right a bit . . . left a bit . . . stop!* and *Journeys* look at measurement and control. These booklets are written in a logical manner and give examples of how IT assessment can be built into different types of topic. They suggest further work in a variety of curriculum areas using the IT materials and contain lots of ideas for teachers who may feel apprehensive about using IT.

As a first impression, the pack makes good use of programs such as *Our Facts, Grasshopper* and other tried and trusted software with which many teachers will be familiar. The software Help cards are both easy to understand and brief but I wonder if some of the exciting new software, especially that which makes use of the more powerful micros now found in many schools, might also have been included to provide teachers who use these computers with a wider choice of software.*

Nevertheless, the pack is full of good ideas and sound, practical advice and I look forward to using the pack in school in the near future.

Colin Rouse
Cranbourne Primary School

Editor's note: I suspect that the provision of 'exciting new software' would have increased the price of the pack dramatically!

Title: **!Glimpse**
Sherston Software, Swan Barton, Sherston,
    Malmesbury, Wilts SN16 0LH
Price: £10.00 (A3000)

If you use clip art a lot, you probably often find yourself wondering exactly what Man1 or Kzin looks like, and don't want to have to use all the memory required to load in *!Draw* and *!Paint* to find out. *!Glimpse* is a handy little utility which allows you to quickly look through your sprite and Draw files to find the one you want. It sits on the icon bar with one of the most interesting icons I've seen: an eye, which opens when you use it. To use it you simply drag a directory containing Draw or sprite files over the *!Glimpse* eye, and a window will open containing a miniature version of each file plus a tiny icon to indicate its file type. Sprite files containing more than one sprite are indicated with a special icon and their contents can be viewed via the *!Glimpse* menu system. Files can be copied into other applications or into other *!Glimpse* windows by dragging.

This is a handy little program – my only complaint is that I would like the option to see a full screen version of draw as provided by *!Viewer, Midnight*

Graphics Draw file viewer. But *!Glimpse* costs only £10 from Sherston Software.

Doug Weller

MAPE matters

Chairperson's news

On behalf of its members, MAPE submitted an application for the Jerwood award earlier this year. This is an award sponsored by the Jerwood Foundation which was created in 1989 and is awarded annually. The award is open to institutions and individuals in the United Kingdom for an original and significant contribution to the theory and practice of education. Past winners include David Jinks and Professor Ted Wragg. In addition to completing an application form I wrote a précis of MAPE's activities. This is reproduced below as members may find it of interest.

'MAPE was formed in 1981. It started when a small group of educational enthusiasts met to formulate a strategy for helping teachers to see the potential for increasing children's learning by integrating information technology into their teaching. MAPE's philosophy is simple – to make whatever contribution it can to raising the quality of educational experiences offered by teachers, to children, to which information technology can make a positive contribution.

MAPE has developed a strategy to support its members which is based on no costs above that of the membership fee. Thus, software specials (computer programs with associated resources) are automatically sent to members as part of their benefits. At a time when quality software was in short supply this proved to be invaluable to members. Now, when quality software is available, but at high cost, there is still a need for this service. Software which is used by many becomes part of the dialogue amongst teachers; they can share their ideas about capitalising on its use, thus there is an associated process of professional development. MAPE recognised the need for support in this area long before anyone else did, and MAPE retains the initiative in providing its members with materials which are educationally worthwhile and which are easy to use. MAPE has produced software which is ahead of its time; software which has provided a focus for development and which has had the effect of raising the quality of resources subsequently produced.

MAPE is almost entirely dependent upon voluntary support. The list of resources which have been produced, and events which have been offered, is a testament to its members' conviction that teachers need this kind of support. MAPE has not, and will not, stand still.

There are many support organisations for those involved in education. MAPE is special for a number of reasons. The focus of activities is on the integration of information technology into the primary curriculum; the emphasis is on highlighting good practice. MAPE supports, and is supported by, teachers who fulfil a range of roles, from classroom teacher to Inspector. MAPE provides a forum for debate; we have a history of involving HMI, DES, NCET and the National Curriculum Council in our activities.

We believe that MAPE can meet the criteria for educational innovation, achievement and excellence. We would be happy to provide further evidence.'

Out of more than 140 applications MAPE reached the long list of 12. We didn't win, but the value the judges put on our efforts was a reward in itself.

In the Summer term edition of *MICRO-SCOPE* I said I would write about the MAPE Development Plan in this issue. We are making progress, but we need a bit more time. I hope to bring members up to date in the Spring term edition.

You should all have received a copy of 'Into Europe' by now. I am sure you will agree that it is a tremendously valuable resource. MAPE would like to record its thanks to all those who contributed to the development of this pack, with special thanks to Chris Robson for her dedication.

Senga Whiteman

Competition reminder

Page 32 of *MICRO-SCOPE 32* contained preliminary information about our exciting competition being organised in conjunction with the World Wild Fund for Nature and supported by IBM. The competition is open to all teachers and classes in primary education (up to and including children aged 12) and the closing date is 1st December 1992. First prize is an IBM PS/1* 386SX with 40 Mb hard disc and software, and other prizes of books, videos and software have been provided by WWF UK, MAPE and IBM.

*Please note that the first prize is a model PS/1, and not a PS/2 as stated in the competition details.

Further information and an entry form were distributed with *Into Europe '92*, but if you did not

receive this, write to the MAPE Information Officer (Comp) at Newman College.

Money facts

By the time you read this, the glorious weeks of sunshine and beach will be but a memory and I shall have been on holiday, but back to MAPE . . . !

It is always our intention to give value for money and I have forecast that we should spend about £10.00 of your subscription on magazines and discs this year. Although a *MICRO-SCOPE* costs only £1.30 to produce, I am sure you will agree that it could sell for twice that figure in the High Street. You will also by now have received *Into Europe '92* and probably looked at aspects of it that you can include in your school planning. My school has already purchased a concept keyboard in anticipation and I intend to use it as part of France, one of my

geography topics for key stage 3. (*I look forward to receiving your article about how you used it! Ed.*)

There has been a slight drop in membership which, with the ever tightening budgets under LMS, was to be expected. May I suggest that if you have not already done so, you consider transferring to Direct Debit so that the subscription can be paid automatically? This is so much easier than asking the busy head or secretary to write out a cheque and there are still free mouse mats left for new Direct Debit-ers!

Our sale of discs and magazines remains high and will help to offset the expected deficit of about £15,000 this year. In this way we are able to spend over £17 of your £15 subscription and hopefully still have a surplus! My address is in the back of each *MICRO-SCOPE* so if there are any queries regarding our finances, please write: I promise to reply quickly.

Happy Christmas!

Keith Whiting
MAPE Treasurer

MAPE COLLECTION Clip Art

WANTED!
!Drawfile Artists

MAPE COLLECTION Clip Art

If you have created any good quality Archimedes Drawfiles which would be of interest to other colleagues and you are prepared to share your expertise, we would like to consider them for inclusion in a new project - the MAPE Clip Art Collection. Discs should include only your own work or that which you have permission to include, and should be sent asap to Des Thomas, Heathwood, Wellesley Close, Crowborough, East Sussex, TN6 1QP, tel: 0892 662342. All discs will be returned.

I shall be collating the work into thematic collections and details of how to obtain the discs will be published in MICRO-SCOPE 38.

Des Thomas

Into Europe '92: Correction

My sincere apologies go to Sarah J Pope who was the author of *Your Europe* which I listed on page 33 of the Teachers' Resource Book, but attributed incorrectly. I understand that the publication is no longer in print and that copies are out of stock, but a largely updated photocopy version is now available. This new version is available from: Sarah J Pope, Gracemount Primary School, Lasswade Road, Edinburgh EH16 6AU, and costs £10.00 + £2.50 p&p (cheque with order please).

Answers to crossword on page 16

Answers for ACROSS
3. GABRIEL
4. STRAW
5. NAZARETH
6. ANGELS
9. CHRISTMASEVE
11. THREE
12. GOLD
14. JOSEPH
15. DONKEY
16. WINTER

Answers for DOWN
1. CARPENTER
2. MANGER
7. MARY
8. BETHLEHEM
10. HEROD
12. GOD
13. EGYPT

Stop press . . .
for Nimbus users of Into Europe '92

There is a minor bug in the file La Belle France. In the conversion from the BBC to Nimbus versions, travelling times which included fractions, eg 5½ hours, the fractions have emerged as spurious characters. This is being corrected and details of how Nimbus users can obtain the revised version will be published in the next issue.

Regional news

Chiltern

We had a very useful session on 1st June at Barnet Teachers' Centre, when the 13 participants (no, I'm not superstitious!) were able to take up their chosen options and thoroughly enjoyed themselves.

We already have a promised audience of 30+ for our next session on 3rd October when Chris Robson will demonstrate *Into Europe '92*.

Contact me for more details about this and other events planned, on 081 866 0827.

Betty Lumley

East Midlands

After looking back at our efforts of the last year we have reverted to our Roadshow format for our Saturday events. We shall be concentrating on three main areas which seem to be in demand at the moment: Data handling, Logo, and Control, with A3000 and Nimbus workshops.

Roadshow dates for the next year are:
7th November 1992 – Grove CP School, Melton Mowbray, Leics
6th March 1993 – College House Junior School, Chillwell, Notts
22nd May 1993 – Kilburn Junior School, Kilburn, Derbyshire

Further information is being sent directly to East Midlands members in September, but if you have not received this please contact me.

It may seem a long way off, but East Midlands members have had an initial meeting to begin organising Conference '94 at Nottingham University. This will take place from Friday 25th–Sunday 27th April, so put the dates in your diary now!

Trevor Wright

Eire

In his article on the East Cork Teachers' Computer Group (page 17), Tomás Ó Gormáin explained the background to our Logo book, *Logo Ar Scoil*. I am pleased to report that it is continuing to sell well and plans are in hand for our next edition. We are already reaping the benefit of our liaison with MAPE; I have just received some interesting LOGO material from MAPE's representative in Scotland which will help in our next production.

I am hoping for a big increase in Eire MAPE membership as information about MAPE will appear in *Primary Computing*, a nationwide computer magazine for primary schools and also in the autumn

issue of our union magazine. Subscription difficulties have now been overcome: the subscription for Eire membership is IR£20.00, payable to: MAPE membership, Scoil Chlochar Mhuire, Carrigtwohill, Co. Cork.

Luke McAuliffe

Great Western

Somerset MAPE's AGM on September 16th will be preceded by a demonstration of the *Into Europe '92* pack.

Our Archimedes beginners' meeting in June was extremely successful with 88 people attending! The meeting scheduled for July in Frome unfortunately had to be cancelled, but schools will be notified of the rearranged time in the autumn term.

Bill Urwin

MAPE activities in Wiltshire work through a system of local Microcomputer User Groups. Group leaders agree their activities, dates and venues and these are then published in a booklet at the beginning of the new school year. Typical activities include: 'Copying and using the Wiltshire Software Toolkit'; 'Beginning to use the BBC Master'; 'Beginning to use the A3000'; 'Writing Concept Keyboard overlays'; 'Getting the most from your colour printer'; 'IT activities related to the National Curriculum Subjects'.

Further details of Wiltshire MAPE activities from Reg Eyre, tel: 0225 753641 ext 2302

Reg Eyre

North West

Nothing is planned for the autumn term but we are anxious to get things going again. We have a suitable venue but still need more personnel to help with the organisation of events and meetings. Please contact Fintan Bradley on 0244 377346/379658 if you are interested in helping in any way at all.

Fintan Bradley

Northern Ireland

The finals of this year's MAPE Primary Schools' Competition sponsored by BP Oil were held at Stranmillis College on June 18th. Prizewinners were:
Category A (P1/2): Victoria Primary School, Newtownards (SEELB) – Teddy Bears

Category B (P3/4): St Patrick's Primary School, Dunamanagh (WELB) – Toys

Category C (P5/6): Moneymore Primary School, Moneymore (SELB) – Bicycles

Category D (P7): Holy Family Primary School, Londonderry (WELB) – Londonderry Workhouse.

Category E (Special): Erne Special School, Enniskillen (WELB) – The Very Hungry Caterpillar

Category F (Teachers in their first 3 years' teaching): Melmont House Special School, Strabane, (WELB) The Strabane Canal.

We would again like to thank our sponsors, BP Oil, for their generosity in supporting us, and our hosts, Stranmillis College.

By the time you read this, we shall have held our traditional Wine and Cheese Open Night in September. Other events are planned for the autumn and spring terms and further details can be obtained from Ron Cromie at Stranmillis College.

Ron Cromie

Scotland

The Scottish MAPE Conference will take place on 28 November at Auchterderran Staff and Resource Centre, Cardenden, Fife. Workshops will include Into Europe, Mazes, and lots more! Further details from Anne Foster.

Southern

On Saturday 4th July, we held a meeting entitled *Music on the Arc*, featuring David Congdon, designer of Longman Logotron's *Notate*. The meeting was held in a room adjacent to the Dorset IT Team's Towards 2001 IT Exhibition. Although the meeting was poorly attended, everyone there found it most valuable.*

The next Dorset meeting will be on September 26th from 10.0–1.00 in the West Dorset Professional Centre, Dorchester Road, Weymouth, when Chris Robson will present *Into Europe '92*.

Our next full regional meeting is on Saturday, 17th October at Horndean Middle School, Five Heads Road, Horndean, Hants, from 10.00–4.00. The subject will be Logo and will be presented by Chris Robinson, from BLUG. This is timed to coincide the the MAPE LOGO Special. The AGM will be held in the afternoon.

John Bennett

*That included your Editor: I had just sent the final copy of *Into Europe '92* to Castlefield Publishers and proudly showed my photocopy to members of the Dorset committee. It is entirely due to the observance and intervention of Pat Baker from Kingsleigh First School that MAPE was not responsible for redrawing the boundaries of Europe, since I was able to rush home and fax the corrected Albanian border to the printers! Thank you, Pat! *Chris Robson*

South East

A visit to the Kent IT Conference at the beginning of the month was interesting but we met fewer MAPE members than we had hoped, possibly due to our 'late arrival' on the list and the large number of seminars taking place. However, we made contact with some and Mike Blamires has kindly offered to host an occasional meeting at Christchurch College, Canterbury.

An AGM is being planned for autumn term, probably at ILECC; further information will follow.

We would welcome any offers of venues in Essex, Surrey and East Sussex, so if you could help, please contact either of us.

Eileen Jaques and Chris Price

West Midlands

Details of the Chirstmas event have already been sent directly to West Midlands members. If you haven't already received these, contact Mick Horwood.

MAPE Software news

Into Europe '92 – a Touch Explorer Plus Resource pack

All members should have received either a BBC or Nimbus version of the *Into Europe '92* pack. The complete pack will also be sent FREE to new members.

Archimedes files will be available in November, but you will need the full *Touch Explorer Plus* pack (from NSNSU) in order to run them. There are three ways of obtaining these files:

1. If you redeem the NSNSU special offer voucher for the full version, (contained in the *Into Europe '92* pack), you will automatically be sent the *Into Europe '92* files.
2. If you already have Archimedes Touch Explorer Plus, a disc containing just the *Into Europe '92* files is available from MAPE software for £5 (includes p&p).
3. If you would like a complete *Into Europe '92* pack but with Archimedes files rather than BBC or Nimbus discs, please state this when ordering.

This third option and additional BBC or Nimbus versions, are available from MAPE software at Newman College. Cost: £9.50 each to existing members and new members, £15.00 to non-members. Please specify the version you require when ordering. Contact the MAPE Information Officer, Technology Centre, Newman College for details of bulk purchase prices and for details of other MAPE software.

Back issues of *MICRO-SCOPEs 23–36* are available for £1 each. Please send cheques with orders to:

Gloria Jones, The Old Vicarage, Skegby Road, Normanton on Trent, Notts NG23 6RR.

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MICRO-SCOPE

Conference '93

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MAPE

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York University

2nd - 4th April 1993

Contact David Campbell for further details

NEWMAN COLLEGE with MAPE