Patcham Fawcett High School for Boys, near Brighton, installed a Rediffusion R50 minicomputer system running on R801 software some 12 months ago and, since then, the school's way of life has changed somewhat dramatically.

"Computing today is an essential part of the school curriculum," said H. C. Gillard, headmaster. "The duty of a school is, in part, to prepare every pupil for life in the real world. And any child today who is not acquainted in some way with modern technology has, in my opinion, been deprived. But it goes deeper than that. This is a boys' school with 700

payroll is run. When they receive their first payslip the boys will already know how the various figures have been calculated and how the payslip was produced.

When the boys first start to enter data they are very, very slow. So to cut down on computer time during the coming year, printed copies showing the layout of a VDU typewriter keyboard have been given to the boys who will be taking computer studies. This will give the students an opportunity to study the layout during the school holidays and practice finding the keys. Bender reckons that once they have this basic knowledge he can get them operating a

Information Management visits Patcham Fawcett High School for Boys

students and, by tradition boys' schools are heavily into technology. Modern technology uses the computer as a basic tool, so all my boys, within the next year, must have had their 'hands on' a computer. The most promising will have an opportunity to take their computer studies at examination level."

It has meant that the headmaster has had to restructure his total school curriculum to provide a large amount of teacher contact time within the general mathematics course in computer familiarisation. He has altered the format of the school's examination options in order that computer studies to examination level should feature in the options available to students.

From this he has received a tremendous amount of feedback from many of the department heads who, although they are not really interested in computing, are insisting on computer facilities being available to enhance the learning process. Consequently, the attitude to teaching students is changing from straight traditional to traditional, but reinforced by modern technology.

With a diminishing staff due to the educational cutbacks the office staff now cope with numerous clerical functions. The R50 has certainly helped Gillard's secretarial and clerical staff on whose skills he depends for the smooth running of the school. A VDU is installed in the bursar's office and the secretarial staff are proficient in using this terminal.

"While we talk, I have on my desk print-outs of pupil information which will assist me in writing their school reports," said Gillard.

In East Sussex a number of schools are undertaking their own total financial management and the staff are being trained by Martin Bender, head of computer studies, so that in a year's time, the school will be doing the same thing. Gillard hopes that this will represent a major saving to the community and increase the efficiency of the school administration.

Above: Pictured l to r are: Cicely Carter – bursar and Sheila McFarlane – clerical assistant who both operate the terminal which is installed in the bursar's office.

Right: Picture shows Martin Bender – head of computer studies, busily developing a new program.

Bender is in his fourth year with the school having joined as a mathematician with some computer teaching experience. His degree in mathematics also included a section in computing and his association with the subject dates back to 1968. Being very interested in the subject he took over the teaching of computer studies during his second year at Patcham. His classes vary between 20-23 pupils but in the new school year he will have 26 in one group, but all from the top stream and he expects them to learn very quickly indeed.

There are three levels of computer instruction:

1. 'O' level standard
2. CSE standard
3. Nonexamination level

The latter course is being introduced to cover these pupils in the new school year. Already courses are run for them covering painting and decorating, car maintenance and, quite recently, some boys were involved in paving part of the school drive. The short computer course will cover payroll. The boys will learn how to key in the details one normally finds on a payslip. This will then give them an insight into how a company
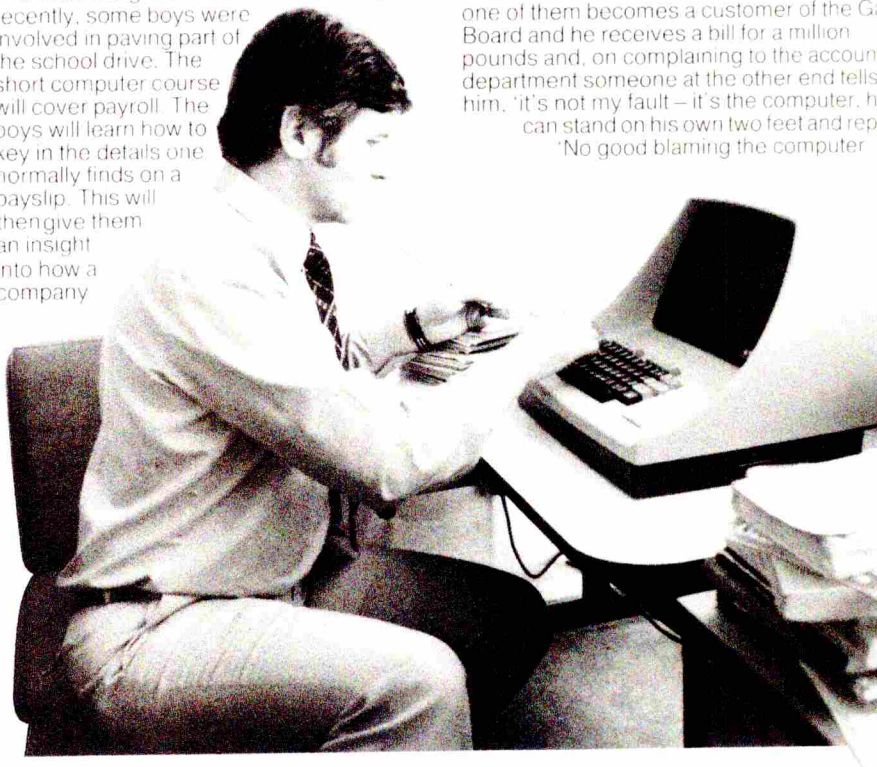
terminal in under two hours mainly because of the way in which the system works.

"It is easy to understand," he said "hence the simplicity and quickness of operation."

The school's computing history dates back to 1975 and, in fact, Patcham Fawcett were the first group in Brighton to introduce computer studies as a serious subject. As the computer becomes a much more widely used tool in the fields of industry and commerce, Bender feels that part of his job, quite apart from the purely educational side, is to prepare the boys for moving into a computerised world.

Obviously not all of them are going to work in a computer environment, but at some stage of their lives they are going to be touched by it one way or another. And if he does nothing else at least he feels that the boys will enter the world unafraid of a computer. They will understand how it works and therefore cannot be 'conned'. So for eg. one of them becomes a customer of the Gas Board and he receives a bill for a million pounds and, on complaining to the accounts department someone at the other end tells him, 'it's not my fault – it's the computer, he can stand on his own two feet and repl. 'No good blaming the computer

I know that it is a human error'.

We spoke to a couple of Bender's pupils and asked:

Brian Woolley aged 14 years.

Interviewer: "What would you like to do on leaving school?"

Woolley: "I hope to join British Rail and use their computer system. I'd like to control the running of the trains at Victoria Station."

Interviewer: "Have you applied for employment?"

Woolley: "No not yet, but my father works for them on the clerical side and sometimes he uses the computer. He's very pleased that I am taking computer studies and is proud of my progress."

Christopher Bankes aged 15 years.

Interviewer: "What type of job do you want?"

Bankes: "I would like to be a computer programmer – because they are well paid."

Interviewer: "What sort of company would you like to join?"

Bankes: "Not really bothered as long as they will let me become a computer programmer."

Interviewer: "Do you like using the Rediffusion minicomputer?"

Bankes: "Yes – very much – it is so easy to operate."

Bender then told us about Andrew Sawyer and Paul Tasker who have just completed two years computer studies at 'O' level standard. The Rediffusion system arrived halfway through the course they were taking, so they only had something like six month's experience on the equipment. Based on that time, they both decided to use the R50 in preference to the micro terminals, as part of their project. Sawyer chose a hotel reservations system and Tasker banking. Although they were using a data entry system both boys managed to simulate their respective projects in real-time. Bender considered these to be of such a high standard that each boy was awarded 100% marks.

Shortly afterwards, a group of Rediffusion personnel visited the school and Bender showed the boys' projects to the visitors. The personnel officer was most impressed and asked to see the boys at the company's headquarters in Crawley. As a result of an interview, and subject to them achieving university entrance qualifications over the next two years, the company will be prepared to consider them for sponsorship on a four-year sandwich course at university. An excellent achievement for the school and certainly an incentive for future students wishing to pursue a career in the computer industry.

Bender also trains members of staff who are required to use the equipment.

"But at the beginning," he said, "I had to fight three main enemies. Apathy, ignorance and fear. I am overcoming the fear by overcoming the ignorance. Once people become familiar with the workings of a terminal then they are no longer afraid. People are only frightened of the unknown. Apathy is still a problem but I hope that battle will soon be won."

The day-to-day applications which have already been introduced are:

Pupils register – which includes names, addresses and each boy's details. This system is used by the secretarial staff mainly for enquiry purposes. By pressing a few keys, the secretary can in a few seconds, display all the information on 'Freddy Jones'. Before it was quite a lengthy process searching through hundreds of school files until one arrived at a boy's records. Now when a new pupil enrols it is a very simple task for the secretary to key in his data and the information is immediately held on tape.

Schoolfax system – As an example of how easy it is to use a computer terminal, on a parents' open day they are encouraged to use a VDU. Consequently, the computer room has naturally become a focus of

Pupils at work in the computer studies class at Patcham Fawcett High School for Boys

parental attention. Bender is planning to run a fairly wide information system. By using a VDU and accessing the Schoolfax index, parents will be able to call up a particular page of interest to them. For example they can now access the mathematics page which displays the name of the head of that department, his/her qualifications, the courses that the maths department has to offer throughout the whole school and so on. Currently there are 14 pages of information for the parents to access and this will gradually be extended. Parents with no computer knowledge are 'chuffed' that they have been given a chance to use the school's computer and Bender thinks that this encourages them to influence their children to take an interest in the subject. For parents soon realise that computers play a very important and vital role in today's world.

By encouraging members of staff to write their own pages Bender feels sure that they are pleased with their results and this urges them on to become more actively involved in setting up the Schoolfax pages. He is using this as a psychological battering ram to break down their resistance to computer technology. Once he has been able to conquer their fear they become really interested. And on setting up their own page on the terminal, they have been known to say to other members of staff 'come and have a look at my page' just to show off how easy it is to create a page of information.

Inventory control of school equipment – Bender has written a program for controlling school equipment. Each individual department can set up their own files to cover their own inventory items and they become responsible for updating it. They can then, at any time, obtain a print-out showing him/her the current state of their inventory control.

Capital expenditure – This system will shortly be introduced which will do away with hundreds of sheets of paper currently housed in the bursar's filing cabinet. It will become a simple operation for the bursar to access the supplier's file, check that the invoice received for new equipment purchased marries with the order, key in the invoice details and this is then ready for payment. Once this has got off the ground successfully, Bender will start looking at other school accounting areas.
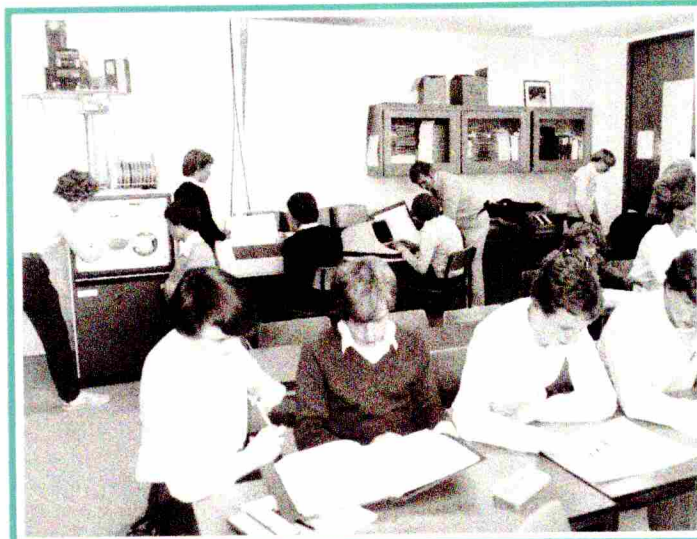
The eventual plan is to switch over 100% to using the computer for the school's day-to-day work. Bender is very impressed with the standard, reliability and quality of the hardware and is convinced that full computerisation is the answer.

In conclusion, Gillard commented:

"I run my school like any company runs its marketing organisation. To be successful it has to market the right product. I feel that I have the right product and, although it is being used in an educational environment – its purpose is to serve as a business tool in helping me and my staff to do a good job.

"There is still a long way to go. We are only now beginning to understand just what the R50 can offer us in terms of the wide range of facilities available. We explore them piece by piece. We have volunteered to use the computer for research of education careers. This is being sponsored by East Sussex County Council and we will continue to explore the wonders of computer technology because it enhances our understanding of what these marvellous 'gadgets' can do," he concluded.
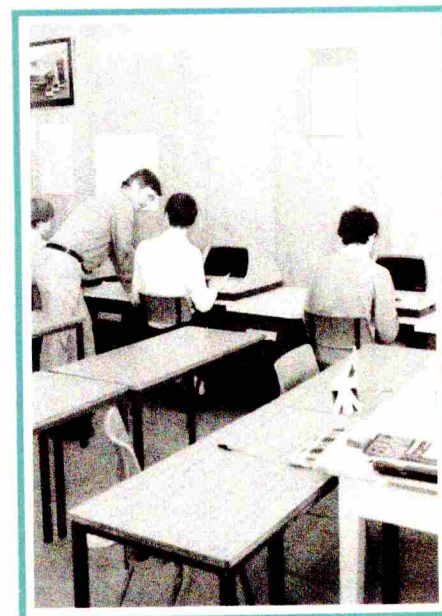

Martin Bender – head of computer studies, is pictured with some of his pupils who are keying in payroll details using the R50 clustered terminal system which was installed last year.