

**Field
Engineering
Division**

CONFIDENTIAL MATERIAL FOR THE EXCLUSIVE USE OF NCR

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MAINTENANCE

£ REVENUE £

m r c CONTEST m r c

A new contest has been introduced into Field Engineering Division known as the "Maintenance Revenue Contest", (MRC) and replaces the Maintenance Quota Club, (MQC) for 1975. As you are aware the purpose of MQC was to predict and measure the future growth of the Division calculated on a machine unit basis.

With the vast differences in the annual maintenance payments, i.e. £8.50 for a Class 100 and £224 for a Class 299, it was obvious some re-thinking was urgently needed to ensure our growth is measured in monetary terms, and increases in maintenance holdings are expressed on the same basis. Another reason for the change was the policy to discontinue the guarantee period for new machines from which MQC quotas for Centres were based.

Nevertheless the prime function of MRC remains the same as MQC with the priority to make sure the Division achieves its objectives. The quota for individual Centres has been based on their 1974 Maintenance Revenue, plus an additional percentage to ensure the 1975 targets are met.

A Centre will be credited with the monetary value relevant to the Class of machine for all new agreements eg maintenance regained from Guarantee/Warranty and those taken with the order. However, monetary values of machines being lapsed will be deducted, therefore the formula will be £ New Agreements minus £ Lapses equals the achievement to be set against a Centre's

objective. All monetary values both for New and Lapses will be taken at the current rate ruling at the time.

Due to the closures of a number of Centres and the consolidation of others which recently took place, it was not possible to commence the MRC Contest from 1st December therefore, the starting date will be effective from 1st March 1975. To offset the first three months Centres will be credited with 100% achievement for the months of December, January and February. Monthly bulletins will be issued showing the percentage achievement by Centres for the month and year to date.

The decision to break away from the machine unit basis and the termination of Guarantee means it is no longer practicable to implement a contest for individual engineers. However personal effort is still most essential and awards will be made to ALL Engineers within a Centre who achieves its target for 1975. The Centre Manager will receive an individual award. In addition to this Contest, stage contests with additional incentives will be announced periodically. Naturally MRC like MQC will be one of the requirements of the F E D Bonus scheme. Undoubtedly, the MRC contest is a major step forward and will assist both Field personnel and Management to monitor the growth in Maintenance Revenue for the well being of us all. It is everyone's responsibility to PLAN-APPROACH-SELL TODAY FOR TOMORROWS FUTURE.

Holiday

Accommodation

Fancy a holiday in Scotland? This may well be the ideal opportunity you have been waiting for. Mr. D.H. Triggs, Divisional Director, I.E.C. Dundee has advised us that it is intended to let a number of the self-contained apartments of the NCR Residence during July and August to employees and their families.

The idea was first introduced last year and proved very successful as Dundee is an ideally situated base from which to tour Scotland.

The apartments are self-contained consisting of a living room with T.V., bedrooms, kitchen, bathroom etc. They are fully furnished and inclusive of heating, lighting, power, bed linen, cooking utensils etc. Ample car parking within the complex is available and there is also a bus stop opposite connecting the main shopping centre in Dundee.

The charge is £26 per week, and in the event that a family is large enough to require three bedrooms, the charge would be £38 per week.

Should you opt for this type of holiday we strongly recommend your booking is made well in advance to avoid disappointment. For any further information and available dates you should contact direct to the Manager, Administration and Welfare I.E.C. Dundee.

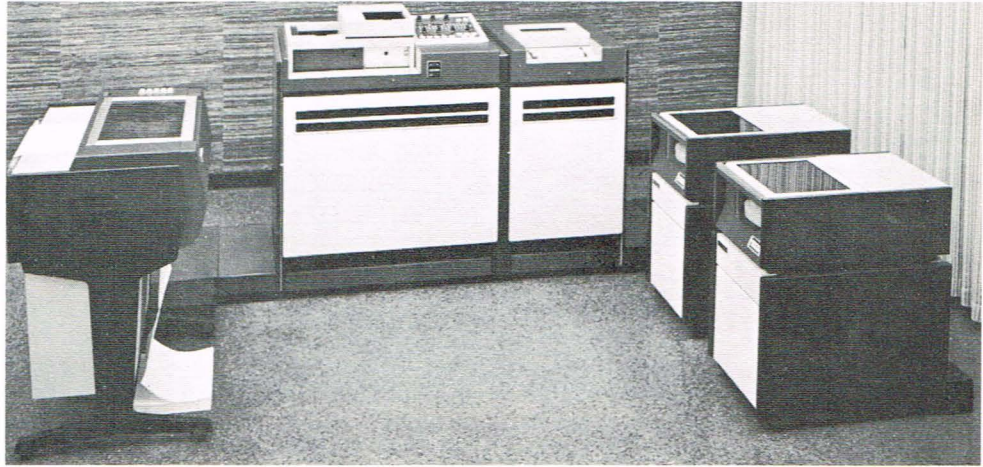
F E D COMPANY CARS

If you require service or repairs to your Company car whilst attending courses at the IEC at Dundee, you should contact Mr Jack Fowler, Manager Business Machines. We have a good relationship with a local garage who offers priority to our vehicles if required.

Century

75 - 151

Systems



N C R have recently announced the release of two new systems for the Century range by introducing the Century 75 and 151 models. These will supercede the Century 150 previously described in our Edition No 2. Many of the characteristics remain, but new features such as:

- 1 Improved Trunk bandwidth
- 2 Reduced Memory cycle time
- 3 Microdiagnostics
- 4 Common trunk parity
- 5 Increased printer speed

become available in this range.

The capability encompassed in this new range will be appreciated from the following configuration descriptions.

CENTURY 75

MINIMUM CONFIGURATION

16K Bytes of core memory (Cycle time 1.2 micro seconds)
 A C656 Disc Unit with one fixed and one removable platter
 C649 printer. Print rate 200 lines per minute.

MAXIMUM CONFIGURATION

64K Bytes of core memory
 Two C657 Low Density Disc Units
 Four Common Trunks
 C640-200 printer. Print rate 200 lines per minute.

PROCESSOR

C615-900 Processor with a C615-951 Auxiliary Cabinet. It has a similar capability as the 615-101 Processor of the Century 150 system and will be used with all Century 75 systems.

CENTURY 151

MINIMUM CONFIGURATION

32K Bytes of M O S Memory (Cycle time 750 nano seconds)
 Two C656 Disc units with two removable platters
 Two common trunks
 C649 printer. Print rate 200 lines per minute.

MAXIMUM CONFIGURATION

128K Bytes of M O S Memory
 Two C657 High Density Disc Units
 Four common trunks
 C647 printer. Print rate 2000 lines per minute.

PROCESSORS

C615-952 Processor with a C615-953 Auxiliary Cabinet for use in small configurations of the Century 151. Up to 64K of M O S Memory
 Optional trunk 6 with a bandwidth of 833K bytes per second which is capable of taking high density 657 Disc units.
 Common trunk parity and Microdiagnostics.
 C615-914 Processor with a C615-955 Auxiliary cabinet for use in large configurations of the Century 151. Up to 128K of M O S Memory
 Optional trunk 6 with bandwidth of 833K bytes per second which again is capable of taking high density 657 disc units. Common trunk parity and microdiagnostics.
 C683 Integrated card reader.

MICRODIAGNOSTICS

This is a new feature for the Century series although similar diagnostics are being used in the M05 (C605) mini processor configuration such as the C399, 725 SLC systems. Briefly, additional diagnostic logic is built into the processor and allows a special diagnostic programme to initiate the execution of the regular processor commands. The operation of the processor can be monitored as it carries out its regular commands.

As explained in a previous issue, all processors execute their regular commands on a step by step basis which are known as micro blocks. The additional logic allows the special diagnostic programme to observe the results produced by each of these micro steps, and for this reason is named "Microdiagnostics".

COMMON TRUNK PARITY

The common trunks, as explained in a previous issue, are the means of joining the processor to the peripherals. Apart from the communication of data they also convey control signals from the processor. The improvement in this area is the ability to parity check the control signals in addition to the check on data transfers, which considerably reduces the possibility of "undetected malfunctions".

NEWS IN BRIEF

Stan Kennedy Northern Area Superintendent who was recently taken ill with a heart attack in the Manchester area has now been discharged from Salford Hospital. We are pleased to report Stan is making steady progress, and I am sure you will join me in wishing him a very speedy recovery.

H C RAY - BRIGHTON

Centres will now be aware that Cecil Ray died suddenly on April 4. His career with F E D started in 1940 as a shop boy in Brighton and this was followed by training over a wide range of equipment culminating in his appointment to Centre Manager in 1962. During his 35 years Cecil was known and respected both for his ability which coupled with his personality made his sudden passing a shock to his many friends and colleagues.

E V WRIGHT - LUTON

We regret to report the death of Ted Wright, Engineer, Luton who passed away on 17 April 1975 after a long illness. Ted joined N C R in 1956 with the major part of his 19 years service being spent at the Luton F E C covering the C R D Range of equipment.

Our thoughts are with their families in their loss.

CLASS 299 - 200 Series



Since the release of the Basic Cl. 299 a year ago over 7,000 machines have been produced and the UK has become a major market for this product with over 1,000 units sold and orders averaging 70 per month.

The latest model to be released is the Class 299-200 series, Expanded machine. This is mechanically identical to the earlier model but has double the memory capacity, giving the possibility of one hundred totals and one hundred and twenty six program stops. Firmware changes have made it possible to retrofit a second Continuous Forms Feeder and a Class 761 Cassette Unit. Further firmware issues due out shortly will also allow the retrofitting of the Magnetic Ledger Card Device, Communications and Edge Punch Card Reader, also a Keyboard Buffer.

These features will provide an even greater sales potential and strengthen the Cl 299's position as the bread and butter machine of the accounting machine market.

To achieve these new features the factory have been able to restrict the changes within the machine to a new ROM board for the Terminal Control Unit a new Terminal Indication Control Board plus an additional Memory Module. This will mean that minimal training will be required to upgrade engineers from Basic to Expanded machines. A self study training package has been issued to the field so that engineers already trained may be upgraded. Future courses in Dundee will incorporate the new machine as a part of the training program and courses will be made available to cover the new peripherals.

PERIPHERALS

The Class 761 will already be familiar to many engineers since it is already in use with other equipment such as Class 250 and Class 280.

The Magnetic Ledger Device is entirely new. It has been designed in Germany especially for use with the Class 299 and the early indications are that it will handle cards far easier than most other Magnetic Ledger devices and still retains a high standard of accessibility.

Both the Paper Tape Punch, which will also be an option on the Basic machine, and the Edge Punch Card Reader are of a new design, again they will be exclusive to the Class 299 range of machine and both these peripherals should be available shortly.

The Keyboard Buffer should overcome all complaints by operators that they can "beat" the Class 299 by attempting to make a second keyboard entry before the previous one has been completely processed.

TECHNICAL INFORMATION

We are receiving many enquiries about the Class 299 Field Service Manual particularly from engineers who attended the earlier courses and have only photostat copies. It was planned to have these replaced by now, however we now learn that a revised manual is in print, which will also cover the Expanded machine. Once this becomes available we will arrange to replace the photostat copies now in use.

The supply of Printed Circuit Boards is still causing problems. The reworking of our present stock of boards is underway which will lead to an improvement, but we understand that there are still a lot of faulty boards in the field. Everyone can help by ensuring that all faulty boards are returned for rework immediately. Remember a faulty board is not only useless but can be misleading to anyone else attempting to use such boards for fault finding.

Well Done

WELL DONE

EDINBURGH

Mr Turnbull Clerk/Treasurer of the Mid-Scotland Water Board, Falkirk, has requested we place on record his appreciation of the work carried out by F E John Michie. Through his dedication in working late into the evening the customer was able to process their payroll on their Class 33 to schedule.

CANTERBURY

We learn from Sales Representative Dick English that the little extra service provided by Gordon Sillett and his engineers contributed to N C R closing an order with Olau-Line Ltd for 8 Class 24-1351 and 2/Class 3-1000 against strong opposition.

A further letter of appreciation substantiating N C R's claim to support its equipment with first class service has been received from A Fryer, Retail Sales. Problems which occurred on the C 5 and 474 sited at J F Holter & Sons Canterbury, and the Class 230 Preset machine at Quinnes Diner, Canterbury, were dealt with very quickly, resulting in renewed confidence in our service back-up by these users.

GLASGOW

Mr W Cameron of Hiram Walker and Sons, Dumbarton wishes to extend his appreciation to Fred Langer and the EDP Engineers who recently carried out repairs to the processing unit of the customer's Century Computer. Their dedication in working through the night ensured the minimum of downtime was experienced.

BONHILL STREET

We learn from Mr N A Nader Branch Manager NCR Kuwait that David Kingston FE EDP Bonhill Street projected an excellent impression on behalf of FED UK when he was recently assigned there to install C621 Multiplexors and assist in the final installation of a Century 201 On Line System.

We extend our sincere thanks and appreciation for the excellent work carried out.

TALENTED YOUNG LADY



Look closely at the photograph for some of you may recognise the very talented young lady who appeared twice on the T V programme "New Faces". Her stage name is Malandra Newman, but I doubt if you would know that she is the daughter of Malcolm Borrows, E D P Engineer, Liverpool.

Malandra, an unusual name, is derived from her parents, Malcolm and Sandra. She won her first talent contest at the early age of two. However more recently when she was seven Malandra began to receive paid bookings from local agents to appear at Social and Theatre Clubs. During last summer vacation she spent the majority of her holiday entertaining senior citizens around Merseyside.

Malandra has made four appearances for Jess Yates in Junior Showtime, singing with Anita Harris in one of her shows. Producer Les Cocks of ATV's "New Faces" was very impressed with her performances and this led to Malandra becoming the youngest ever New Face at eight years of age. She was chosen as the winner of the show and appeared again in an all winners show. In both appearances she sang original songs which she had helped to write herself.

Malandra is a very versatile young lady, for apart from her beautiful voice, she also dances and is a comedienne. At present, apart from the odd paid show, most of her entertaining, covering beat to ballads, is for charity shows.

Malcolm and Sandra have received a number of television approaches from advertising as well as Sunday concerts, but at the moment they

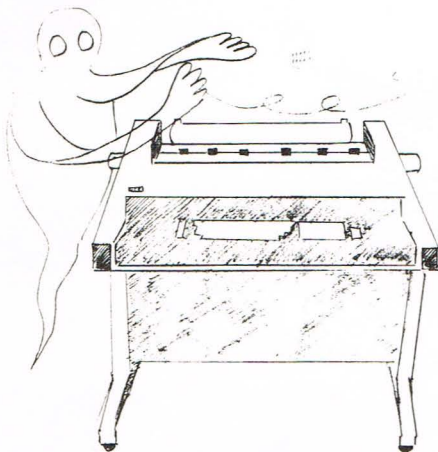
feel it would be in Malandra's interest to let her develop her talents naturally and see what is forthcoming in the future. They have also ensured her education is unaffected and this was proved recently when she was chosen to represent her school, The Woolton County Primary, in a National Schools Project.

I did not realise that I would be placing Malcolm's life in jeopardy when I requested the information of Malandra for whilst he was jotting the details down, the rest of the family were looking over his shoulder and press ganging him to make us aware of their talents.

Apparently, Malandra together with her seven year old sister Starianna and her three year old brother Shawn join forces to give hour long shows on their own at Old Age Pensioners Clubs, which must make their parents very proud of them all.

Since showing Malandra's photograph to the staff at Head Office we have all applied to join her fan club and I am sure everyone within F E D wishes her every success for the future in the entertainment world. Liverpool has always had an abundance of talent, and who knows, this young lady may become a future star.

GHOSTWARE ?



When we are called in frequently to attend to a customer's machine which is faulty we naturally investigate the problem in depth and somewhere along the line one would reasonably suggest the answer is with the Operator, Hardware, Firmware or Software. Not so in the instance of a C299 sited in a family business in Southampton.

Norman Taplin, Field Engineering Centre Manager for the area called at the User's request to discuss

the matter and he was ushered into the back office, (kitchen) for the meeting. He found this somewhat of an ordeal when a caged Minah bird continuously whistled, talked and at odd intervals used him for target practice from its water dish. This was coupled with a yapping white terrier who had weighed up Norman as the most promising meal he had seen for some time.

The problem with the C299 seemed quite straightforward at first. He learned the tapes kept coming off and the gold ball printer head had been found over the back of the machine, but this is where the mystery deepens because the faults occur when the machine is not in use and the room is under lock and key. The local police say it is NCR's problem and F E D have yet to solve it. Naturally, the customer is most concerned and feels it is the work of a Poltergeist. He is now calling in the local preacher for his opinion.

Could the answer be "GHOSTWARE" problems.

DUNDEE Social Centre

You will be interested to learn that Mr Triggs has finalised an arrangement whereby all students attending I.E.C. in Dundee become honorary members of the Dundee University Students' Union Social Club.

The premises themselves are extremely modern and expansive and permit a wide range of social activities including, of course, a well stocked bar. There are the usual indoor games rooms and, from time to time, dances and discotheques are held, all of which are open to I.E.C. students. Naturally you will be expected to purchase food and beverages out of your own pocket, but admission is through the use of a card which will be issued to you by I.E.C. on arrival in Dundee.

For more details of this social facility, I suggest contact be made direct with the Manager, Administration & Welfare, telephone number 0382 811198, or personally in the Administration Area at the school.