



PRESS ANNOUNCEMENT

M. J. ALDRICH

PRESS CUTTINGS

OCTOBER 1988

INTERNATIONAL PRESS-CUTTING BUREAU
224-236 Walworth Road,
London SE17 1JE

Extract from
Electronics Weekly, London

ROUND UP

CRAWLEY COMPUTER concern **ROCC** is to give each of its 450 employees a free share in the company. A 10p share worth 82p on the market will be allotted to each of the firm's workers, while those employed at the firm for five years will be given an option to buy more shares at a 30 per cent discount on the current price. Mike Aldrich, boss of the data and videotext specialist, said he hoped to sell up to 100,000 shares in this way, although in theory he reckons that the total number issued could reach 250,000. In the year to last March ROCC made profits after tax of £1.645m on sales of £16.01m

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224-236 Walworth Road,
London SE17 1JE

Extract from
Personnel Today, London

Computer staff win shares...

Rocc Computers, based in Sussex, is to give free shares to all its staff. Around 450 people work for Rocc and each will get a free share. Managers and employees with over five years' service, have been offered extra shares at a 30 per cent discount.

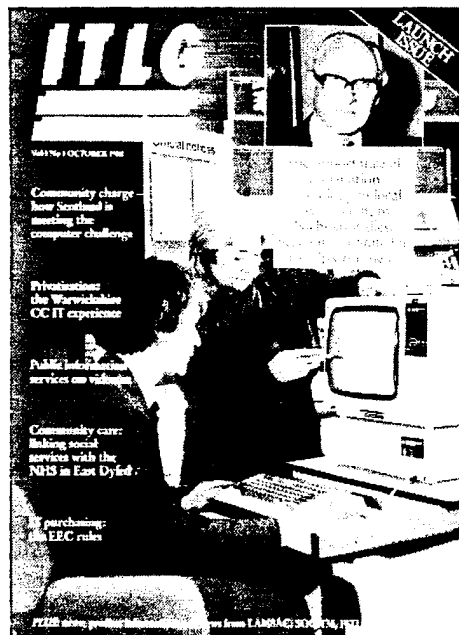
Staff can sell any shares they do not want once a year, but Rocc is hoping that it can create a culture of share ownership with the company. The company's share value is currently 82p. It made nearly £1.7 million post-tax profit in its last financial year.

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Extract from
Communicate, High Wycombe, Bucks.

-- OCT 1988

The **South Eastern Electricity Board** has ordered a **ROCC 2835** multiuser computer system with 20 workstations from **ROCC Computers** for installation at its Worthing Central Accounting Office. The new system, running ROCC's Workstation Management System software, will be used to capture data for a variety of applications including customer records, meter readings, personnel, payroll, appliance sales, invoicing and stock movements.



Cover photograph courtesy of Hounslow
LBC's public view/data service

Vol 1 No 1 OCTOBER 1988

that each was only required to provide the fairly minimal sum of £7500. The data was loaded during the summer and winter of 1985 with trial use made of the system in two libraries. HVS was launched publicly in February 1986.

The old manual card index was used as the starting point for gathering information on local organisations, which were sent questionnaires with a reply paid envelope requesting information about their organisation. Having loaded most of the data on local organisations, we were faced with the problem of persuading council departments to provide suitable information about their work.

We were aware of the need to 'sell' the system to departments if we were to persuade them to provide the kind of information we wanted. To sell it we needed something to show them, so we presented a demonstration of the local organisations database to the senior staff of each department. With such an attractive and user-friendly database, we succeeded in generating enough departmental enthusiasm to provide us with detailed information about their services — an exercise few departments had previously undertaken.

Videotex is primarily a communications tool and we saw it as a means of improving the communication of information between the council and the people it serves. HVS was a response to two major problems: first to cope with demand from the public for a wide range of information about local organisations, facilities and events and, second, as a means of making information about council services more readily available.

As a result of setting up HVS, it is now easier than ever before for people to find out the answers to questions such as how to make a planning application, who to contact for a skip permit, help available for unemployed people, what you can do about noise nuisance, and the meeting schedules and membership of council committees.

The interactive features of videotex were used to enable the public to send messages to the civic centre, using response frames to request application forms for a job or planning permission, to request further information about a particular topic, or to report problems like faulty street lights.

While setting up HVS, we were very conscious of the need to keep the information up to date. For the purposes of checking information on outside organisations, we developed an automatic update cycle. This generates address labels for printouts once a year to organisations to check on the information.

The quality of council information on HVS is monitored through liaison with each department, together with a complete printout of each department's information once a year. Maintenance of the information is a very labour-intensive process, so expansion of the database has had to be strictly controlled to match staff resources.

As a result of getting additional staff this spring, we were able to launch a comprehensive local events database with

up-to-the-minute information about all kinds of events, both within the borough of Hounslow and in the surrounding area. From the start, HVS has included information on organisations in neighbouring areas, since we realise that the public's local information needs do not halt at administrative boundaries.

Information held on HVS is structured by topic areas rather than by departments. This reflects the information retrieval approach of an enquirer, rather than the esoteric organisation of the council. A large number of lateral links between related areas of information are built into the structure, to facilitate cross referencing. Similarly, for speed of access, a large number of keywords are used, so that the user can easily hop from one part of the structure to another, without the tedious job of moving up and down the tree structure.

Terminal population has steadily expanded through a combination of dedicated videotex terminals and the addition of videotex software for use on personal micros. Terminals are spread widely around the borough so that all areas have a public terminal at a convenient location. Printers are also widely available so people can instantly obtain a free printout of the information they want.

Videotex terminals are used for locations primarily intended for public use, whereas offices — used by staff only — usually use micros. Videotex terminals were donated to selected organisations, including the three local Citizens' Advice Bureaux, the Workers' Support Centre and the Watermans Arts Centre, in order to widen public access. Terminals are also located in the 11 public libraries and the civic centre information desk for public use. In addition, all the secondary schools have access to HVS using their BBC micros. They use the system as part of their IT teaching and also have the facility to set up their own databases hosted on HVS.

The main problem with maintaining a community information database is the traditional one of checking and amending the information, in order to keep it as up to date as possible. Maintaining some 4500 frames of information is a labour-intensive process. Use of the automated update cycle ensures that we are made aware of data that needs checking and are provided with an address label for the purpose. But to send out the amendment requests, check the responses and chase up organisations takes a considerable amount of staff time. Anyone setting up a community information system should be aware of the fact that, to maintain good quality information, an adequate staffing level is essential, particularly if highly volatile information, such as local events, is to be included.

One possible solution to the staffing problems is to distribute the editing among a series of departments — each responsible for editing their own part of the database. While this approach has the dual advantage of spreading the workloads and, ensuring that editors are in close touch with the field they are responsible for, we have preferred to maintain a central editing

unit. The reasons for this are:

- distributing the editing creates problems in enforcing a house style;
- a central unit editing a unified database can integrate information and speed information retrieval through lateral links — adopting a topic-centred, as opposed to department-centred, approach we regard as an important element in making access to the information as easy as possible; and
- reliance on a series of editors in different departments inevitably results in a patchy database, with some enthusiastic editors providing a good quality database, while others fall below acceptable standards.

Within the next 12 months we plan major enhancements to HVS. The present minicomputer is to be replaced with a more powerful machine with a larger port capacity. This will enable us to develop new applications for HVS and continue to increase the number of users. In particular we want to make HVS available to home micro users and to develop 'gateways' between the videotex system and mainframe databases, which will provide user-friendly access to selected council information — previously only available to a few officers. Gateways could be used to access information such as job vacancies, the weekly planning list and information about local businesses. We are also studying the possibility of linking HVS with a booking system for leisure facilities and an electronic information board system displaying messages in public locations.

The example of HVS proves that a successful community information videotex system can be set up at minimal cost, given the right circumstances and the commitment of those involved. Once a system has been created past success can be built upon and improved resourcing obtained in the future.

- *LAMSAC is conducting a survey to find out the extent to which local government is using videotex to convey information to the public, to senior officers, as an alternative system (for theatre reservations and so on) and as an internal messaging system.*



Colin Pink
IT liaison officer, chief executive's office
Hounslow LBC

27 OCTOBER 1988

Board of Governors Nominated

The Formation Committee, which has met four times since June, has drawn up a list of independent board members which has been sent, along with the names of elected members, to the Secretary of State for approval.

The names of the ten independent members will be published in the next issue of *Channel* (17.11.88).

Below are the names of those members who have been elected/nominated by the Polytechnic.

Two members of the teaching staff elected by the Academic Board

Professor Gordon M Bull
Professor Ken Overshott

One member of the teaching staff elected by the teaching staff

Dr Jon Bareham

One member of the non-teaching staff elected by the non-teaching staff

Mr Paul Hill

One member who is a student nominated by the students at the institution

Ms Jane Packer
President, Brighton Polytechnics
Students' Union

Director

Professor G R Hall CBE FEng

Three members will also be nominated by local authorities

1 East Sussex County Council
1 West Sussex County Council
1 Brighton Borough Council

Once membership has been formally announced by the Secretary of State, the Board of Governors will have an early meeting to nominate one 'additional nominee', who must have experience of higher education. The Chairman of the Formation Committee and the Director have indicated that they would wish to see this place used to strengthen links with the University of Sussex.

Corporate Status Workshop

Despite having ultimate responsibility for the institution the new Board of Governors will have only limited day-to-day managerial responsibility for the smooth running of the Polytechnic. This was the view of several of the speakers at the Fifth Workshop on Corporate Status for Deans and Heads of Department held on 17 October.

Mike Aldrich, Chairman of the

Formation Committee, stressed that the Committee has put forward the names of people who, in its view, are best suited for the job of member of the Board of Governors. However, it is unlikely that industrialists, business people or leading figures in other areas would be able to give up a great deal of their time, hence it was thought a maximum of four meetings a year would be realistically achievable. This would then leave the operational

management of the institution in the hands of the Director and, if he wished, a management committee.

The Formation Committee has already produced a mission statement which will be made available to the Academic Board's Working Party on Corporate Goals.

Shared Values

Mike Aldrich addressed the changing spirit of higher education by stressing the need for shared values. Top of his own list would be the need for equal opportunities and greater access. The Polytechnic was in the 'people development' business, he said. 'We should expect to educate, train and retrain people several times throughout their lives'.

One member of the audience expressed doubt at being able to undergo such a radical shift in higher education when limited resources meant that change could only be implemented incrementally. Mike Aldrich replied that we would all have to become more adept at finding alternative sources of funding, either on our own or collaboratively.

Role of the Academic Board

The exact role of the Academic Board in the new structure was a question that worried several members of the audience. The Academic Board itself had expressed serious reservations at the proposed maximum membership of 30 in its comments to the Secretary of State on the draft Articles of Government. It proposed a maximum membership of 45 with 15 ex-officio, 15 appointed and 15 elected members. The Formation Committee has also expressed its opposition to a maximum of 30 Academic Board members.

Autumn term issue no 2

Several members of the audience were also concerned at the proposed reduced role of the Academic Board in determining the character of the institution. Despite the fact that the existing Articles of Government give no direct responsibility to the Academic Board, members still felt that the Academic Board's influence on academic character and standards might be reduced rather than strengthened under the new system. The Academic Board's response to the Secretary of State underlined this concern and argued that the Board of Governors should consult the Academic Board on all matters concerning the educational direction and character of the institution, the formulation of aims and objectives and that the Academic Board should be responsible for the academic health of the institution.

Staff Representation

One major point of difference between the Formation Committee's and the Academic Board's responses to the draft Articles of Government was concerning staff representation on new staffing and finance committees. The Academic Board believing staff and student representation on both committees desirable whereas the Formation Committee felt that any new staffing committee would be more involved in formal negotiating procedures and it would not be appropriate for a staff representative to take part. It did feel, however, that a staff representative from the Board of Governors could take part in any finance committee.

Final model Articles of Government are expected soon from the Secretary of State. The Polytechnic then has to submit its proposed Articles of Government (which should follow the DES model closely) by 1 January.

Fighting Credit Card Theft

A new computer system designed to detect signatures forged by cheque and credit card thieves was tested by Professors Gordon Bull and John Boardman before its public launch to the trade press.

Designed by ROCC Computers of Crawley, the system immediately attracted national media attention. The system's computer can recognise an individual signature from a 10 digit code which can be printed alongside the signature space on a cheque or in a strip on a credit or bank card. When someone signs a cheque or credit slip this can be fed into the machine and compared with the code. If the signature does not match the code the

PRODUCT NEWS

ROCC Computers is to supply the Liverpool Victoria Friendly Society with two **ROCC 2835 multiuser systems** running its Workstation Management System operating software. The contract is worth around £168,000.

The new computers replace existing ROCC equipment and will be used for capturing data from a wide variety of insurance and other documentation. Such data will include policy new business, alterations and claims, as well as accounting information from field agents. After verification the data is transferred to tape for further processing on the society's ICL 2966 mainframe computer.

ROCC Computers is a long-established computer manufacturer and is totally British-owned. Its sales operation is run from branches in Crawley, Leighton Buzzard, Bristol, Manchester and Edinburgh. Service centres are situated in the same premises as the sales branches in the major cities with additional centres at Hitchin, Aldershot, Tamworth and Surbiton. ROCC Computers' headquarters, manufacturing, development and training centres are located in Crawley, West Sussex. ■

*For further information contact the press officer
on
0293 31211 Ext 2383.*

Extract from

Cheque Alert's Mafia alert

by LORANA SULLIVAN

ROBERT Margolies, an American Mafia associate who is the subject of a British arrest warrant, is a major shareholder in Cheque Alert, a small US public company that is seeking to market the world's first signature verification system under licence from ROCC Computers Ltd, a subsidiary of ROCC Corporation Ltd of Crawley, Sussex.

On Friday *The Observer* informed Michael J. Aldrich, ROCC chief executive, of Margolies' background. Within an hour Aldrich reported that he had resigned as a Cheque Alert director. An adviser on information technology to the Prime Minister from 1981 to 1986, he added: 'We've got to get out of this as fast as our little legs will carry us.'

Aldrich's action could precipitate the cancellation of a public offering of 2.2 million units of Cheque Alert securities in the United States. A registration statement covering the proposed sale was filed with the Securities & Exchange Commission a fortnight ago. Aldrich reported that he informed South Richmond Securities, the underwriters, of his resignation from Cheque Alert's board. The company's existing shares — which are quoted in the 'Pink Sheets' listing of over-the-counter stocks — were last priced at \$1-\$1.50.

Aldrich said that ROCC is not at risk if the offering is cancelled. ROCC Computers was named Rediffusion Computers until a management buy-out in 1984. The company has developed the DigiScan system of electronic signature verification, which is intended for use in the banking, financial services, retail and credit card industries.

'It's the world's first signature verification system, and look who's queuing up to get it,' Aldrich said.

According to Cheque Alert's prospectus, Margolies owns 13.3 per cent of the shares, while Sonya Margolies owns 10.1 per cent.

Aldrich says he has never met Margolies or Stephen Goren, another New Yorker who owns 17.7 per cent of Cheque Alert's shares.

The SEC revoked the broker/dealer licence of Cohen Goren Equities in June 1973 and barred Goren, the firm's vice-president, from associating with any broker/dealer, investment adviser or investment company for two years. The SEC said that Goren could apply to work in the securities industry in a non-proprietary or non-supervisory capacity after a two-year period.

Robert Margolies is the subject of a warrant issued by HM Customs & Excise alleging that between 1 December 1982 and 26 July 1983 he was knowingly concerned in the fraudulent evasion of duty chargeable on Krugerrands. It is alleged that he conspired to evade VAT of £3 million on £20 million-worth of Krugerrands smuggled into the UK from Jersey and Switzerland.

A Federal Bureau of Investigation report in the possession of *The Observer* describes Margolies as 'LCN business associated.' LCN stands for 'La Cosa Nostra', another name for the Mafia. Both Robert and Abraham Margolies, his brother, are business associates of Matty 'The Horse' Ianniello, a high-ranking member of the Genovese organised crime family who is currently in jail.



Aldrich: 'We've got to get out.'

According to SEC records, Robert Margolies was a principal of Marsan Capital Corp, a small New York brokerage. Abraham Margolies was a shareholder of Ravendale Group plc, whose subsidiary — licenced dealer Ravendale Securities — sold British investors worthless shares in Marsan and other UK and US companies.

Thomas F. Quinn, a disbarred American lawyer presently incarcerated at La Sante prison in Paris, was closely associated with both Marsan and Ravendale. A Genovese family associate, Quinn — also a former stockbroker — was jailed for securities fraud in the early Seventies.

He was arrested on fraud charges on 27 July, when Swiss, German and French authorities acted to end the largest securities fraud in history. This fraud, which had been operating since 1983, involved 'boiler room' operations in the UK, Europe, the Middle East and Asia, selling worthless American over-the-counter shares to small investors.

The president of Cheque Alert is Gregory B. Hackert, who also owns 8.3 per cent of the company's shares. Hackert was formerly associated with Blinder Robinson & Co, a Denver broker/dealer which has spent the last few years in a pitched battle with the SEC. According to the Cheque Alert prospectus, Hackert holds Robert Margolies' irrevocable proxy to vote his shares for the next two years.

Aldrich said that Hackert approached ROCC with the proposal that Cheque Alert should acquire an exclusive licence for the DigiScan system for the US, Canada and Central and South America. In return, ROCC received shares in Cheque Alert.

American documents in *The Observer's* possession suggest that Genovese capo Ianniello was involved in an earlier, abortive signature verification venture, which used the Identimat machine system to verify electronically signatures or fingerprints on a plastic card. The system was to have been developed to prevent non-members from gaining entrance to clubs.

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Extract from
Computer Talk, London.

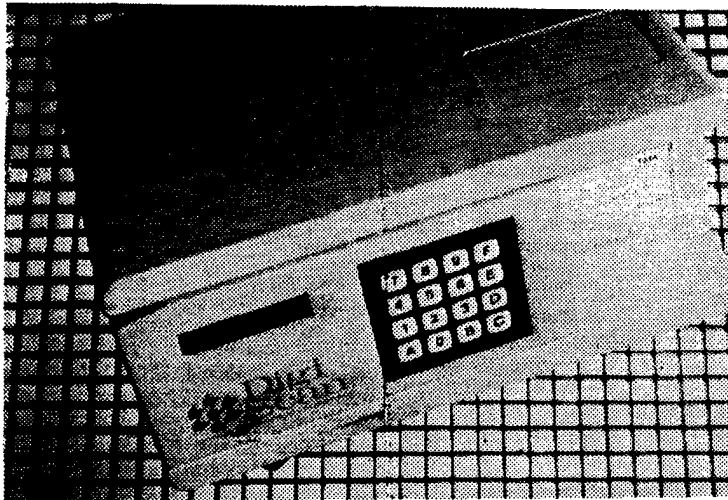
- 3 OCT 1988

● Sussex company ROCC Corporation has developed a signature recognition system, which it claims is 95% foolproof.

The system, which may be applied to help prevent cheque and credit card fraud, uses a mix of computer technology and mathematics to compare signatures

5 OCT 1988

Bad news for cheque fiends



● FORGERY foller ROCC's DigiScan.

A CRAWLEY company has this week announced a major breakthrough in its war against cheque and credit card cheats.

ROCC Pattern Recognition, a subsidiary of ROCC Corporation, is to play a big part in an international crackdown on fraud and forgery.

The company, based in Kelvin Way, has signed a licensing agreement with New York company Cheque Alert for a low-cost signature verification system.

The new product, called DigiScan,

is a simple, inexpensive self-contained system that consistently and accurately differentiates between true and false signatures. It is the result of eight years of research and development.

"For all practical purposes, signatures can now be electronically verified for personal identification and authentication," said Michael Aldrich, ROCC Pattern Recognition's chief executive.

"Fraud perpetrated directly through or aided by signature forgery can be reduced to insignificant proportions."

Extract from
East Grinstead Observer, Sussex.

5 OCT 1988

System that beats fraud

ROCC Pattern Recognition Ltd has announced a major technological breakthrough in pattern recognition which could beat computer fraud.

Pattern recognition is the technology for recognising patterns and intelligently analysing them. Uses include personal and document identification. Own application is signature verification.

ROCC of Kelvin Way, Crawley has produced a simple, inexpensive, self-contained system that consistently and accurately differentiates between true and false signatures. It is the result of eight years of research and development.

"For all practical purposes, signatures now can be electronically verified for personal identification and authentication. Fraud perpetrated directly through or aided by signature forgery, can be reduced to insignificant proportions at an economic cost," said Michael Aldrich, chief executive.

- 4 OCT 1988

**LINK TO ORGANISED CRIME OF US PARTNER
PUTS ROCC DIGISCAN DEAL IN DOUBT** 4526

Following the announcement by ROCC Computers of an international marketing agreement for its innovative signature verification technology with Cheque Alert Inc last week (CI No 1,024), it has become apparent that the New York-based licensee may not prove the perfect partner. At the time ROCC made great play of the fact that fraud, counterfeit and security breach costs the US consumers nearly \$50,000m a year and was therefore the ideal place to launch the system. However according to a report in Sunday's *Observer* Robert Margolies, an American Mafia associate who is wanted for fraud in Britain, is a major shareholder in Cheque Alert and now ROCC chairman Michael Aldrich is quoted as saying he wants out. Cheque Alert is a one-product company whose existing shares, which are quoted in the Pink Sheets listing of over-the-counter stocks, were last priced at \$1.00-\$1.50. Aldrich was approached by Cheque Alert chairman Gregory Hackert who proposed that his company should acquire an exclusive licence for the DigiScan system for the US, Canada and South America in return for shares. According to Cheque Alert's prospectus Robert Margolies owns 13.3% of the shares and Sonia Margolies owns 10.1%, while Stephen Goran, the firm's vice-president who owns 17.7% of the shares, was banned from associating with any broker/dealer or investment company for two years in 1973. A Federal Bureau of Investigation report describes Margolies as "LCN business-associated" - LCN stands for La Cosa Nostra (just doing Our Thing, your honour). Aldrich has since resigned from Cheque Alert's board putting in jeopardy the public offering of 2.2m units of Cheque Alert securities in the US. But ROCC's problems are not over yet as getting out of the exclusive licensing agreement may well prove long and expensive. Mike Aldrich was not available for comment yesterday but whatever happens it is likely to be some time before we see the DigiScan signature verification system on the US market.

3 OCT 1988

An end to cheque forgery?

A CRAWLEY company has developed a major technological breakthrough to beat cheque forgers. 4526

The new DigiScan system, produced by ROCC Pattern Recognition, has already been exported to America. The company has also applied for patents in Europe and Japan.

Fraud, counterfeit and security breaches costs the US economy an estimated 50 billion dollars a year.

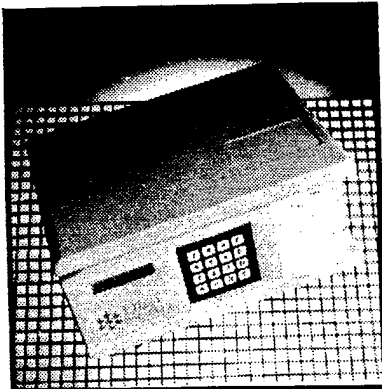
The technology, which took eight years to develop, can accurately verify if signatures on cheques and other important documents are true.

ROCC, based in Kelvin Way, Crawley, says it is 99 per cent accurate in dealing with forgeries where the forger has not seen the true signature.

Chief executive Michael Aldrich said: "Signatures can now be electronically verified for personal identification and authentication."

- 5 OCT 1988

FRIGHTENER FOR FORGERS



● The DigiScan device spots the 'write' signature.

CHEQUE cheats who fiddle funds with false signatures have met their match - a tiny touch of Crawley technology.

For a new ROCC-developed checkout fitting has given forgers the shakes.

Their craft of stealth is threatened by the 500 dollar DigiScan device.

From now on they will draw a blank when they try to fool shops with stolen credit cards and cheques.

Boffins at ROCC's Manor Royal laboratories claim their brainchild can catch 99 percent of crooks.

The micro marvel analyses the trend of a signature, not the actual squiggle, and can tell to a decimal point how a personal mark can change.

Changes in a signature because of the DT's, nervousness or just plain human nature are taken into account by the breakthrough invention.

It can even compensate for the type of pens used, from ballpoints to quills.

Counterfeiters cream off 50 billion dollars a year in America and ROCC hope to corner the market there.

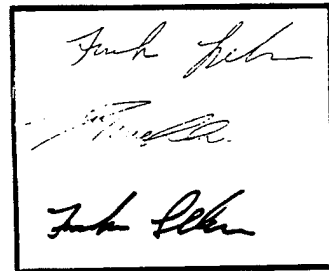
They have already shipped the first batch of

DigiScan across the pond to distributors.

Europe is the next, and they even hope to conquer new markets by incorporating the device into shop tills.

Chief executive Michael Aldrich said: "Our results came consistently from six weeks of testing using very different signatures and different versions of the same one."

"Checking a signature only takes three seconds. It's quick and can be used on its own or added to another computerised machine".



● Are these signatures by three different people? ROCC's new machine would spot the top and bottom ones are by the same person.

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Extract from
Computer Weekly, London

28 OCT 1988

Mafia claim clouds Rocc's hopes of a US breakthrough

An alleged Mafia connection has killed UK computer manufacturer Rocc's immediate chances of breaking into the US market with a new signature verification system.

The Digiscan system, which uses visual pattern recognition techniques and costs around £200 for a verification unit, was to have been sold by a new US company, Cheque Alert. Rocc took 10% of the firm, believing the other backers to be venture capital companies.

But Rocc is pulling out after discovering that at least one other big shareholder, Robert Margolis, is alleged to have Mafia connections. Margolis is also wanted by the UK Customs and Excise over alleged evasion of value payment on £20m worth of Kruggerands brought into the UK.

Rocc chief executive Mike Aldrich was initially bullish about the Digiscan's chances in the US. "US government figures show fraud, counterfeiting and other security breaches cost \$50,000m a year there."

Digiscan works out a recognition algorithm from a person's sample signatures. The algorithm is turned into a unique 10-digit code which can be printed on cheques or held in a credit card's magnetic strip. When the person uses a signature the verification unit checks it by the code.

"The verification travels with the individual on cheques or credit cards, so the checking units don't have to be linked to a central computer holding copies of all signatures, as with other systems," Aldrich says.

■ John Kavanagh

ACCESS CONTROL/FENCE
INDUSTRY
ATLANTA, GA
M. 16,967

SEP 1988

Cheque Alert Inc.

The Digiscan System from CAI is an effective means of personal identification involving static signature verification. Digiscan technology will integrate with existing banking equipment. The encrypted 20-digit signature identifier code can be embedded on a magnetic strip of a credit card, embossed on its face or printed on a check, since the number need not be memorized or secret.

INTERNATIONAL PRESS-CUTTING BUREAU
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Extract from
Telegram, London

1 OCT 1988

LINK TO ORGANISED CRIME OF US PARTNER PUTS ROCC DIGISCAN DEAL IN DOUBT

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Following the announcement by ROCC Computers of an international marketing agreement for its innovative signature verification technology with Cheque Alert Inc last week, it has become apparent that the New York-based licensee may not prove the perfect partner. At the time ROCC made great play of the fact that fraud, counterfeit and security breach costs the US consumers nearly \$50,000m a year and was therefore the ideal place to launch the system. However according to a report in Sunday's Observer Robert Margolies, an American Mafia associate who is wanted for fraud in Britain, is a major shareholder in Cheque Alert and now ROCC chairman Michael Aldrich is quoted as saying he wants out. Cheque Alert is a one-product company whose existing shares, which are quoted in the Pink Sheets listing of over-the-counter stocks, were last priced at \$1.90-\$1.50. Aldrich was approached by Cheque Alert chairman Gregory Hackert who proposed that his company should acquire an exclusive licence for the DigiScan system for the US, Canada and South America in return for shares. According to Cheque Alert's prospectus Robert Margolies owns 13.3% of the shares and Sonia Margolies owns 10.1%, while Stephen Goran, the firm's vice-president who owns 17.7% of the shares, was banned from associating with any broker/dealer or investment company for two years in 1973. A Federal Bureau of Investigation report describes Margolies as "LCN business-associated" - LCN stands for La Cosa Nostra (just doing Our Thing, your honour). Aldrich has since resigned from Cheque Alert's board putting in jeopardy the public offering of 2.2m units of Cheque Alert securities in the US. But ROCC's problems are not over yet as getting out of the exclusive licensing agreement may well prove long and expensive. Mike Aldrich was not available for comment yesterday but whatever happens it is likely to be some time before we see the DigiScan signature verification system on the US market.

25 OCT 1988

Sign of the genuine

4526

Introns

THE WRITING is on the wall for forgers. Scientists have produced a simple and inexpensive means of spotting up to 99 per cent of forged signatures.

The ROCC company in Crawley claims that eight years of research and development work has led it to a major technical advance in pattern recognition. It says signatures can now be electronically verified so accurately that forgery can be reduced to "insignificant proportions."

The technology has been incorporated into a tamper-proof verification unit known as DigiScan which can authenticate the identification of a person whether or not he or she is present. It can be "invisibly" integrated into existing credit and banking operations which makes it much more acceptable than obvious forms of identification such as fingerprinting, voice recognition or hand geometry.

Independent tests indicate that the new system has a consistent performance that establishes new world standards in authentication.

ROCC says the technological challenge was to minimise the acceptance of false signatures while maximising acceptance of the genuine ones. DigiScan works by deriving a numerical code from a minimum of six sample signatures. The numerical code is then either printed alongside the signature box on cheques or encoded in the magnetic stripe on plastic credit or identification cards.

The system takes just three seconds to compare the written signature and the numerical code and in cases where the forger has not seen the true signature the detection rate is over 99 per cent. Even where the forger has taken great care to copy a signature the machine will spot around 95 per cent of the forgeries.

You have been warned . . .

JW.

Report No. 4224/100478

Transmitted on BBC R.4 - Science Now.

Length 6'20"

Date 1st October 1988

Time 1630

Short Title Signature Verification System

Alun Lewis: And now for some very bad news for thieves and forgers. A good forger can apparently pick up any one of my credit cards and after a little practise can produce a passable imitation of my signature. It would be good enough to fool most human observers, and would allow the criminal to spend my money. Currently, scientists are working on security systems which do not involve signatures. They've given up with handwriting and are trying fingerprint matching, scanning retinas, creating voice prints and even measuring the size of our ears.

All these methods require quite a lot of computing power, and expensive extra hardware. However, Mike Aldrich of Rocc Computers in Crawley has developed a simple and cheap device which will spot a forged signature.

Michael Aldrich: All that we did was really to build a box, about the size of a shoe box, that enables you to put a cheque in, read the signature, and compare it with a number that has been precomputed. And all you're really doing is checking a signature against a number. It sounds terribly simple. I think actually it isn't terribly difficult to do. The real problem was getting the mathematics right.

Alun Lewis: Well you now claim that you have got them right. When you say you're checking against a number, where's that number generated from?

Michael Aldrich: Ah, the way that you do it is this. It's probably a good idea not to think about signatures... signatures are rather dreadful things. You never ever write your signature twice the same way, so it starts out being a pretty difficult thing to.. conceptualize. Probably a much better idea is

to start thinking about a space, a space that, you know you could say is the signing box on a cheque, and think of that as a piece of topography that has peaks and valleys and features and things like that. If you start thinking in those sort of terms you can actually bring together the science of pattern recognition and a branch of it called feature analysis where what you're setting out to do is to identify the features and then put them together into some sensible sort of pattern.

Now because no individual two signatures are the same you've obviously got to find out that there is a variability factor, and finding out the variability factor is probably, if you're very clever, you could do it one afternoon, or if you're like us it probably takes about three years.

Alun Lewis: But the features you're looking at, the pattern in the signature, when you've given it the code, what is that code looking at in my signature for instance?

Michael Aldrich: Well it looks at all the obvious things, the verticals, the horizontals, the slopes, the curves, the spatial aspects; where you actually stick your dots or not as the case may be. Just the features, the topographical features of the signature.

Alun Lewis: So if we want to use this device in the real world you've obviously got to map my signature, that's the first step is it? In practice how would I do that?

Michael Aldrich: The way it's done is that we have this precomputed figure. Now the computed figure is done by taking a number of sample signatures, subjecting them to these formulae or algorithms as they call them, and constructing this number.

Alun Lewis: And then, simply when I come to sign when I authorise an expenditure on my credit card or my bank, then what happens?

Michael Aldrich: The first thing is that we put the number in the stripe on the bank card or on the credit card and we take the signature off the bank card and we take the signature off the credit card, because what that immediately does is turn all potential forgery into unseen forgery. In order to make the system function you put the credit card in first, take off the number, then put in the cheque, compare the signature to the number, and it either says yes, or it says no.

Alun Lewis: So inside the device that's first of all accepted my credit card, there is then an optical reader?

Michael Aldrich: There is a laser scanner that is just scanning the signature. The technology I'm afraid isn't very.... in fact I rather suspect that you could buy most of the bits down at the local electrical spares shops. It isn't about artifacts it's about mathematics. You read the signature and you then do the calculation, and you calculate in exactly the same way as you calculated when you had encoded the original number. And we just check the number against the signature and it's yes or no.

Alun Lewis: Is there a danger of, when you've got this system set up, if it is very good, of rejecting people whose signatures do vary a little bit too much?

Michael Aldrich: Exactly, the problem all along in terms of getting something that was going to be acceptable is that you had to minimise the number of true signatures that you were going to reject, and you had to maximise the number of false ones that you were going to stop. Now the way that this is done is through systems called thresholds where you actually set a degree of variability on a standard signature that you are prepared to accept or not accept. The more you try to make it 100% acceptance of the true, the higher

the number of forgeries will be that will get through. So it's a balance, it's compromise that you have to go for.

Alun Lewis: At its best, how good is it?

Michael Aldrich: I think we differentiate between two types of forgery. The first kind is unseen forgery where the forger has not seen the target original signature. In that case it's better than 99%. In the case of seen forgery where the forger's actually seen the target signature it's about 95%. We can't catch the perfect forgery, that isn't possible, it's actually a contradiction in terms. But what we think is that for most purposes... let's go back to the credit cards and the bank cards; if you take the signature off, you will turn the forgery into unseen forgery and will stop 99% of it.

Alun Lewis: And did it work? Well, I gave it some rather hurried versions of my identifying scrawl, and then my producer offered it some rather good looking forgeries that he'd prepared, and - the machine accepted one, which under the unfair test conditions says rather more about my producer's dubious talents than the machine's effectiveness.

...ooOoo...

Report No. 4224/100475 Transmitted on BBC R.4 - Money Box.
Length 2'35" Date 3rd October 1988 Time 1000
Short Title Signature Verification System

Louise Botting: An invention caught our eye this past week that claims virtually to eliminate cheque and credit card fraud by verifying whether or not a signature is genuine. It's been developed by a Sussex company called ROCC Pattern Recognition, and we invited their Chief Executive Michael Aldrich to give us a demonstration in the studio.

Michael Aldrich: Just take one of these cheques, write your normal signature in that signature box which is the yellow portion.

Louise Botting: Louise Botting, with a dot at the end of it, that's me.

Michael Aldrich: Fine. We now take that and we'll enrol you on the system.

Louise Botting: Now I'm going to sign another time to test whether the machine works. Hold on - Louise Botting, dot at the end; there we are, try that in the machine. I can do it myself? Here we go, push it in - processing, please wait. Accepted! So what's the secret, how actually does it work?

Michael Aldrich: Well it's all about patterns, it isn't about signatures at all. It recognises all of the features. From the features it turns those features into a mathematical equation, an algorithm, a formula, and it actually calculates a discreet number, which is you.

Now that number follows you around everywhere. It's either put into the magnetic stripe on a credit card or on a bank card, or it's printed alongside the signature box on a cheque. Whenever you write your signature, the system looks at the signature, looks at the numbers, and says - yes this is a good signature, or no it's not.

The major element of fraud is unseen forgery where someone's trying to forge your signature having never seen it. It's 99 times out of 100, more than that, it will catch them. In terms of seen forgery, where somebody is trying to forge your signature having seen your signature, it largely depends upon the skill of the forger. A perfect forger will win, but generally speaking 95 out of 100 won't get through.

Louise Botting: Although it's an all British invention, the system will first be used in America where fraud and counterfeiting is estimated to cost more than 50 billion dollars a year; but could it catch on here?

Michael Aldrich: I think that really depends upon consumers, because it isn't the banks or the credit card companies that pay for fraud. It's a very big task obviously to bring something like this in, and it will obviously take some time.

...ooOoo...

Report No. 4224/100476

Transmitted on BBC Sussex - Sussex Standard.

Length 1 minute

Date 28th September 1988

Time 1300

Short Title New Signature Verification System

Richard Brock: A firm in Crawley says it's made a major breakthrough in the fight against signature forgery. Rocc Pattern Recognition Limited says it's found a way of automatically verifying signatures, and it's hoping to market it in America where fraud costs the consumer nearly £50 billion a year. Jane Dodge reports.

Jane Dodge: The company which employs around 450 people have been working on the invention for more than seven years. What they've come up with is a simple but effective way of verifying signatures. Each signature is given a number that's then printed alongside the cheque. If a false signature is later presented, it can be immediately spotted by checking through the machine that the numbers correspond.

The Chairman of Rocc, Michael Aldrich, says he's confident that it'll be a great success.

Michael Aldrich: In terms of actually making it work I think it's a very, very major breakthrough. The idea's been around for a lot of years; actually getting it to work, it's taken us eight years. We are very, very optimistic about it.

...ooOoo...

Report No.....4224/090731

Transmitted on.....IR Mercury "News".....

Length...50 secs.....

Date...28th..September..1988.....

Time0800....

Short Title.....Anti-Fraud System.....

Graham Freer: A computer company from Sussex is waging war on fraudsters. Rocc Corporation from Crawley has announced plans to market a brand-new system which is programmed to recognise counterfeit signatures. Chief Executive, Michael Aldridge, says the system will be able to expose hundreds of criminals who would otherwise slip through the net.

Michael Aldridge: (Rocc Corporation) At the heart of all financial transactions is the signature. If we can actually verify that people are who they purport to be, and that signatures are actually correct and valid, and can be processed in enormous volumes quickly, and still be free from fraud, then we must be able to make a very significant dent into this level of criminal activity that is going on, which the consumer pays for.

...ooOoo...

BBC RADIO FOUR

PM

SEPTEMBER 27, 1988

17.15

PRESENTER:

Credit card and cheque fraud is a multi-million pound industry. But now a Sussex firm claims to have come up with a potential solution. ROCC Corporation in Crawley have produced a machine which checks the signature on your card against that on a bill and can spot all but the most expert forgery. Our home affairs

2/

reporter Fergus Walsh has been investigating.

(Digi-Scan advertisement)

NARRATOR:

Digi-Scan (phonetic) is more than a small table top unit. It is a revolutionary technology that can be customised to protect any business. It's the end of bad cheques and stolen or counterfeit credit cards and the beginning of fool-proof personal identification. Digi-Scan knows your customers better than you do.

FERGUS WALSH:

The Digi-Scan signature verification system is hailed by the manufacturers as a major break-through in the battle against credit fraud. The machine, about the size of a shoe box, was shown off today to some suitably suspicious journalists. A series of convincing forged cheques were fed into the machine and outirfully rejected. The problem was it also rejected a signature which wasn't a fake which

3/

could be embarrassing if it happened at a check-out.

But Michael Aldridge, a Chief Executive of the ROCC Corporation, soon had the system working properly.

MICHAEL ALDRIDGE:

And out it comes and the system says 'reject, call the supervisor, it's a forgery'.

FERGUS WALSH:

The signature checker has taken 8 years and a large amount of money to develop. But will it stop the experienced forger?

MICHAEL ALDRIDGE:

No, I don't think anything will actually stop the accomplished forger because an accomplished forger is probably capable of producing a perfect reproduction. And if you can produce a perfect reproduction then you can't stop it, but it's actually incredibly difficult to

4/

do a perfect forgery, particularly in the way that most of these cheques are written.

They are normally written at a retail counter with someone looking at you and to do a perfect reproduction in that environment with the pressures and all of that, of actually forging in public is really rather difficult. They'll be a few that we won't catch, but the vast majority we will.

FERGUS WALSH:

What about the normal variations in people's signatures? Will it allow for those?

MICHAEL ALDRIDGE:

Quite surprisingly, you very rarely write your signature twice in the same way. There are variations in the signature all of the time. What we have done is by having a system that uses a number of sample signatures we can pick up most of the variations that take place. I think we probably also pick up your hang-

5/

over morning signature.

And by taking various samples we then construct an algorithm, a formula, a number that will actually reflect all the ways that your signature naturally varies.

FERGUS WALSH:

The signature checker is being launched first on the American market where credit card fraud is far worse than in Britain. Terry Krueger, who's marketing the machine, says it could save American financial institutions tens of millions of pounds.

TERRY KRUEGER:

Credit card fraud that's been admitted to is in excess of \$200 million a year. Bank fraud, forgery and counterfeiting is nearly \$2½ billion a year as reported by the FBI. More importantly, it's growing at approximately 100% per annum.

We've talked to scores of banks, retail outlets

6/

corporations for internal procurement purposes and there's great interest. They identify the problem, they're somewhat loath to speak of the problem, the extent of it, but they are very excited about the technology.

PRESENTER:

It's a terrific idea. I wonder how many signatures you've got to do before they get it.

CO-PRESENTER:

Well, you've just been writing your name, 4 times and they're all different!

PRESENTER:

I know all the 'g's are different anyway!
Anyway that report by Fergus Walsh.

Ends