THE Philips Group is a major user of videotex and has been involved closely with ROCC in advancing the state of the videotex art. Together, the companies were the first to implement an IBM pass-through system as well as a Prestel look-alike, or ROCC's CVS system. The two organisations are now jointly working on the implementation of the error correction protocol in conjunction with Prestel.

This article looks at Philips Group's near ubiquitous videotex system, MOVIES, and its manifestations within the group's operating companies. Based around a ROCC 2830 computer system with 48 ports linked to a large IBM 3081 mainframe in Croydon, MOVIES is one of the most extensive private videotex systems in operation anywhere in the world. It was one of the first to put the customer into direct touch with the corporate database for enquiry and order purposes alike, materially changing the way that Philips relates to its customers.

PHILIPS TAKES AUTOMATION OUT TO THE CUSTOMER WITH VIDEOTEX

The man who is seen as 'Mr Viewdata' within Philips is Tony Metcalf – EDI coordination and support manager.

The nature of the service business in the domestic appliance ('white goods') and home entertainment ('brown goods') markets has changed in the consumer's favour in recent years. Products have become inherently more reliable, particularly brown goods: anyone who rents, rather than buys a TV these days is on a loser.

But while this has been good for the consumer, it has also increased the manufacturer's stockholding costs and the risks of obsolescence. In practice, fixed costs have become an ever increasing proportion of the total costs of providing a service operation.

A large part of the cost per transaction in Philips Service, which is the service end for all the company's domestic products business, is fixed and always has been. But the average lines per order and the average line value have been dropping for the past decade or more.

So, as Philips, what do you do to contain costs within acceptable limits and at the same time maintain service levels?

The answer, says Bernard Atkinson, marketing and sales manager, Philips Service, is you automate. For the past decade, Philips Service has spent £1 million a year on automating systems within the company. "The result is that we do have highly developed internal systems," says Atkinson. "We were automated up to the boundary of the company and there was only one way we could go after that which was to automate out to the customer."

For Philips Service, the customer is the dealer as well as the general public – John Smith who rings up saying, 'I've got one of your washing machines, it's white and I need one of those plastic bits on the front'. In most cases, the dealer is rather more precise, but with some 450,000 prime product codes appearing in Philips Service manuals, which even after rationalisation across a product range amount to 64,000 in stock, where diversity and change are essential facts of life, even the most efficient dealer is going to have trouble sometimes in identifying the part he needs to effect a repair.

The dealer also wants to have ready access to pricing and availability information, as well as a quick and easy way to check on the progress of orders already placed.

"The word 'access' is key."

The word 'access' is key. With the best will in the world, it was difficult for Philips Service to respond promptly to the 2000 to 2500 'phone calls a day that were coming into its spares department. Simply getting through on the 'phone was a problem.

"Here we were, with our highly developed computer systems infrastructure, waiting at the end of a 'phone line for the customer to call and ask questions," Atkinson commented. "Clearly the answer was to get out of the loop and give the customer direct access."

The medium for connecting the customer to the system really chose itself: it had to come down the 'phone line and have a universal protocol; it had to be easy to use; and it had to be cheap. There was one other condition – it had to be interactive.

Philips Service had been a user of Prestel from the outset as a means of putting information out to the dealer and accepting orders. The view that every TV and radio dealer would be bound to have a Prestel set didn't materialise in fact, however.

"We were getting a reasonable flow of orders from Prestel but it wasn't developing," said Atkinson. "The system had to be interactive: we had to have more than a passive order placing medium."

The answer was viewdata, or videotex as it came to be known internationally, and from October 23 1986 Philips Service has been offering its trade customers a wide range of ordering, enquiry and messaging facilities through a system called MOVIES, an interactive videotex system that Philips is promoting across all its operating companies.

At the turn of the year, 100 dealers were on the system, with the number creeping up steadily. Each dealer pays a £300 annual registration charge – 'the good dealer recognises that you can't just go on giving service away'. In return, he gets direct access into Philips' IBM mainframe database which maintains complete information on a total service stockholding of £6 million.

The dealer can key in to a part number and see immediately on the videotex TV screen whether or not the part is available and the price structure. He can convert the enquiry to an order off the screen. If he needs to identify the part, he can do so by keying in the model number and looking at the parts lists in a variety of ways. For example,
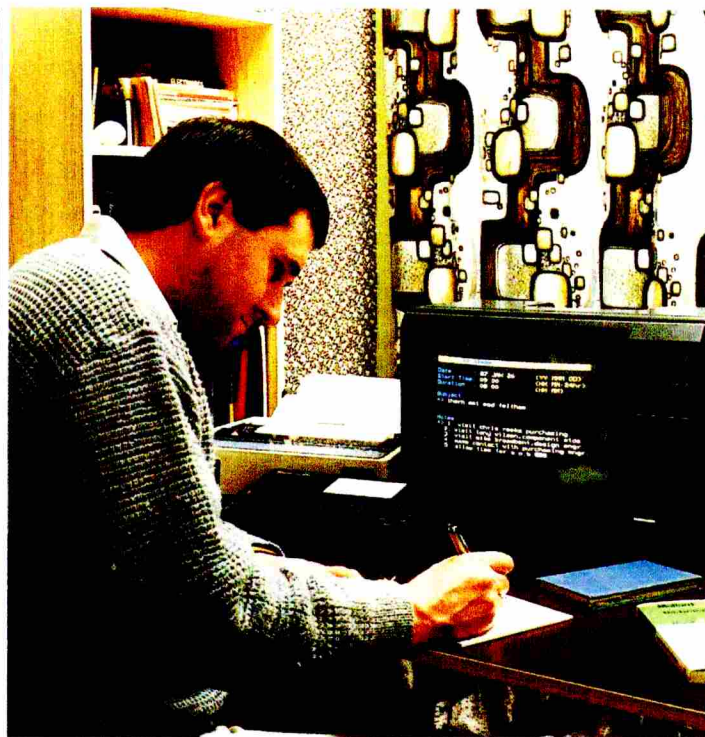
if he wants a pulley, he can start by keying in 'p', or he can check general classification for switches, say, and can quickly scan through a list of switches.

If, on the other hand, he wants to know what's happened to orders he's already placed, the dealer can do so, again in all sorts of different ways. He can look at orders placed that day, at orders pending – at the picking stage, in the warehouse, those invoiced and so on.

In addition, Philips has put a wealth of information, both technical and commercial, on the system for the dealer to access. The contents of the company's technical magazine, *Service Link*, are accumulated on the system making the two-monthly publication into a daily, as is information on commercial policies, price changes, special offers and suchlike.

"We want people to turn first to the screen rather than for the 'phone."

"We're trying to make available any information that will head off a question. We want people to turn first to the screen rather than reach for the 'phone," says Atkinson.

Another major factor of MOVIES is a messaging

facility. Dealers can communicate with central department and their Philips Service technical liaison officer (TLO) via the MOVIES screen. The TLOs each carry with them a small portable videotex terminal which they use to demonstrate MOVIES, as well as to pick up messages and themselves communicate with the system.

A number of enchancements to the system are already in development for early introduction. One of these is an 'order hold' facility that will allow dealers to build up an order during the day. Any order under £50 has attracted a handling charge of £2.50, but this goes down to £1.50 now if the order is placed electronically and, clearly, there is also an incentive to build up the order to over £50. The dealer will also shortly be able to find out delivery dates of out-of-stock items using the system and fill in Philips claims forms via the MOVIES screen.

"We're out to make the vicious web of complex transactions that goes to make up the service business as simple as possible both for ourselves and the dealers," Atkinson commented. Since service will become increasingly important for the dealer, particularly with the pared-to-the-bone pricing on finished products, efficiency in providing service is likely to be
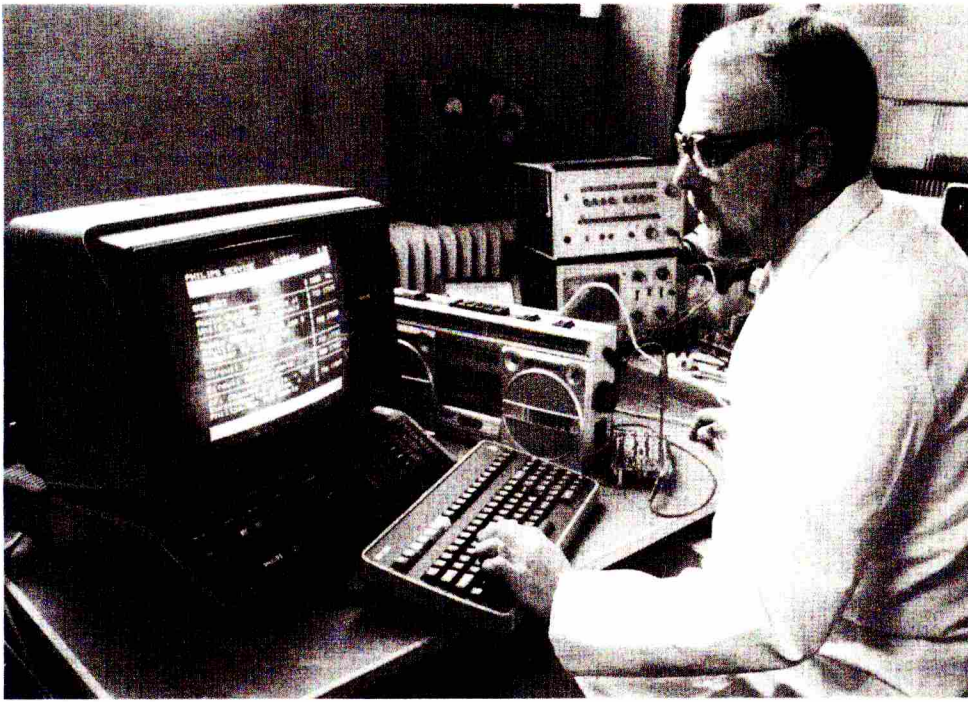
Picture shows a Philips Service engineer using the MOVIES system at his workbench to find technical information to assist him in completing a repair.

the number one priority for the dealer who knows what he's doing, Atkinson added.

Currently, MOVIES is available to dealers from 7.00am to 6.00pm, which has already extended the time window by three hours compared to the sales desk 'phone enquiry system. It will shortly be extended to 7.00pm and include Saturday mornings. The messaging facility, moreover, is available round the clock.

Since, furthermore, MOVIES makes use of the nationwide Istel data communications network, the potential exists for dealer-to-dealer communication. Atkinson and his team are currently thinking through the implications of this.

"... a whole new philosophy

He points out that MOVIES already has turned round the whole perception that Philips Service had of its operations. In the past, the information was on the internal sytem and from time to time Philips would let the customer have certain information in response to a direct enquiry. Now, Philips throws the whole system open for its customers and only closes some of it off where commercial security dictates that it should. "That's a whole new philosophy," Atkinson remarked.

The new philosophy is reflected organisationally too. The decision to develop an electronic dealer network went hand in hand with a major reorganisation of Philips Service. The network of eight service branches gave way April 1986 to one central service located in Purley Way, Croydon. At that time, seven service branches were closed and the drive to put a videotex system into the operations, which had been on the agenda for several years, really got under way.

Group interest.

Philips commitment to videotex is group-wide. In each of the 18 operating groups, there is a technical person charged with fostering the development of MOVIES within their particular operating unit.

The development is overseen by the central Information Systems and Automation (ISA) department and within ISA the man who is seen as 'Mr Viewdata' is Tony Metcalf whose title has recently broadened to encompass all 'electronic data interchange' (EDI) as EDI coordination and support manager. EDI encompasses all electronic links to the outside world as the next step in the process – not as an alternative to viewdata, Metcalf insists, but as another option.

Metcalf and his group,

working closely with ROCC, were the first in the world to get interactive videotex transactions operating with an IBM mainframe, at the same time maintaining complete compatibility with the Prestel standard.

The first systems were developed for Mullard, a Philips subsidiary and the company with a decided vested interest in videotex as the producer of videotex chip sets, notably the Lucy chip set that won it a Queen's Award for technological achievement and is a standard in the business.

MOVIES was developed for Mullard and the acronym stood for the mouthful 'Mullard On-line-order-book Viewdata Interactive Enquiry System'. In its Philips Service guise, incidentally, it becomes 'Multi-Option Viewdata Interactive Enquiry System'!

Mullard started work on MOVIES in the wake of Prestel and, since 1983, has been using the system to communicate with its distributors and to allow them to input orders directly. There are 210 users currently, half of them being third party customers and the remainder Mullard sales engineers who access the system either from home or from central sales desks in Mullard offices in London.

There are 14 prime Mullard distributors, or wholesalers, who will each have people dedicated to the Mullard franchise. In some cases this can be as few as four people, in others it can get up to 40.

The system copes with something of the order of 3000 to 3500 enquiries a week currently and a similar number of order progress enquiries, according to Mike Pickett, the business systems manager assigned by Mullard to MOVIES. The high level of use of the system was proof that it was working well for distributors, he commented.

"There's no room for confusion – the distributor is seeing the information on our mainframe: he's seeing the best we've got," Pickett added.

Something like 1000 order lines a week are coming into Mullard electronically now – that's some 35 per cent of all orders. They tend to be the smaller orders, the sort that come in thousands and cost

most to administer. "The fact that we can handle them through MOVIES is a tremendous step forward," Pickett said.

The capacitors and resistors that make up the bulk of the Mullard order book are not, incidentally, high ticket items. They can cost as little as £5 per thousand which puts a premium on efficient order administration.

Altogether there are 8000 different products that Mullard sells through its distribution channel and MOVIES contains a mass of product information accessible to distributors. A weekly 'What's new' feature on products complements the extensive product database. And the messaging facility is there to link any two users on the system.

In addition, there is an extended range of enquiries available to internal users of the system. For example, Mullard users can access the company's powerful management information system, GENIE, and also its VISTA electronic mail system. One of the features of VISTA is a link into the telex network and sales engineers make frequent use of this to send telexes through MOVIES to any part of the world from the videotex TV terminals they have at home.

> ## "The system is constantly being updated and improved. It never stands still."

The system is constantly being updated and improved. It never stands still, according to Pickett. A publications database has just been added to the system. And the lessons learnt from the experience with distributors to date are now being applied to produce an improved order entry package. Pickett said, "with the right imagination viewdata can open up any area of the mainframe database. We're approaching everything with an open mind on the principle that the more information you've got on the system, the easier it is for the user."

The use that Mullard sales engineers, or representatives, make of MOVIES from home is a feature that other operating

groups within Philips are fastening onto with alacrity.

Philips Business Systems has provided its 64 sales reps with videotex terminals as its primary application for MOVIES. Pye Telecommunications is using it in the same way and through distributors in the marketing of cellular radio. Most commercial divisions, in fact, are working at using MOVIES to link to sales reps in their homes and Metcalf is expecting another 100 reps to come onto the system across Philips over the next 12 months to add to the 280 existing reps already on the system.

The system is becoming all pervasive. It is not only the major operating groups either – a much smaller organisation such as the 41 staff shops

uses videotex to determine price and availability of goods and to place orders.

The statistics, impressive in themselves, rattle off Tony Metcalf's tongue. Taking a typical week in November, there were 2600 log-ons from all users and a total connect time of 550 hours. During that week there were 7500 videotex frames actually screened, 1100 messages exchanged and 16,200 IBM end-user-screens sent via MOVIES. Users include a handful on the Continent in Eindhoven, Paris and Vienna.

From his base at Mitcham, Metcalf has seen MOVIES go from bit parts, as it were, to a leading role on the UK Philips stage. There seems nothing to stop it breaking box office records around the Philips world.

The Information Systems and Automation department is responsible for the development and enhancements to the computer systems installed within the Philips group.

Gerald Tagg – external databases expert is seen checking on recent enhancements to MOVIES, an interactive videotex system being promoted by Philips across all its operating companies.

Is the day of the paperless office one step nearer at Philips? By using its electronic mail system VISTA, Tony Metcalf – EDI coordination and support manager can, for example, check his diary and cancel and make new appointments from any location throughout the UK which has an interactive videotex terminal.