OFFICE AUTOMATION PILOT PROJECTS

User BBC Breakfast Television Supplier Hewlett-Packard Ltd
On January 17th 1983 the British Broadcasting Corporation transmitted its first regular breakfast television programme, BREAKFAST TIME. It was the dawn of a new television era in the United Kingdom. Never before had a daily programme been so long (2½ hours), had so many sequences (an average of 75 per day) or been transmitted so early in the day (6.30-9.00am).

From the initial planning stages it was evident that some form of automated system should be considered to support its extra scriptwriting and complex programme management operation. The traditional paper based system, successful though it may have been in handling transmissions of a shorter duration, was likely to be expensive for BREAKFAST TIME - both in human and capital terms. To duplicate, assemble and distribute over 100 pages of script would require an additional staff that the programme was loath to engage, and room for which was demonstrably lacking.

Several computerised systems were researched but none came up to the comprehensive standard required by the BBC. Therefore, with just six months to go before the programme’s premiere, it was decided to build the system which is now the BBC Electronic Newsroom System (ENS). Taking such a decision was considerably aided by being able to demonstrate that the needs of BREAKFAST TIME would involve a high level of office automation and thus complement the DTI’s Pilot Project Strategy. The fact that may distinguish ENS from the other pilot schemes is that, for the BBC at least, its installation was more than just a pilot. For BREAKFAST TIME to succeed, ENS had itself to succeed from its first day in operation.

The Site

When BREAKFAST TIME was first announced in February 1982, Lime Grove Studios supported only one daily programme. In the eyes of many, the building had outlived its usefulness. With its cornerstone laid in 1914, it was already one of the oldest television studios in the world and was ripe for killing off.

The advent of this second and complex new programme gave Lime Grove a technological shot in the arm that has put it on a par with any modern studio. Now it boasts not only an automated newsroom system to support the programme staff but one that is innovative. The fibre optic technology used to equip ENS now electronically links the journalists at their workstations to other areas vital to a broadcasting news operation - the computerised graphics, technical area and production control rooms.

Whilst the labyrinth that is Lime Grove remains, the system by-passes the architectural confusion. It sustains an operation that takes place on any of 6 floors, and has 1km of cable run from the processor to its furthest terminal.

The System

The system comprises two Hewlett-Packard 44 Series Mini-Computers – a master Central Processing Unit (CPU) and a backup machine – each with 3 megabytes of memory. Either CPU can be switched to support 44 HP 2622A terminals with integral printers and a half dozen HP 2601A daisy wheel printers. An HP 7933 disc drive (404 megabytes capacity) and an HP 7925 (120 megabytes) are associated with each machine.

A separate HP 9826 Micro-Computer (72 kilobytes of memory) interfaces 12 external news agencies to ENS whilst printing hard copy simultaneously on an HP 2608S medium speed matrix line printer. The 12 selected agencies produce a daily average of three million characters, any piece of data having a 24 hour lifespan before being overwritten by new material.

An Autocue 2000 Micro-Computer (twin 5¼ inch floppy discs with 265K of RAM), located in the BREAKFAST TIME studio itself, completes the system. Used either in a stand alone mode or interfaced to ENS, it provides additional
resilience to the system as well as ensuring the real-time supply of scripts and running orders to the programme's presenters and producers.

The Application

ENS is, primarily, a broadcaster's tool though any organisation which handles scripts - e.g. advertising and public relations companies - could use the system. Its 23 facilities complement the work patterns that media journalists traditionally follow: ENS is, in fact, a computer program written for journalists by journalists.

Structured at three levels – informational, creative and administrative – the facilities cover every aspect of programme-making from the BREAKFAST TIME diary to the Autocue screen presentation.

The three informational facilities, COPY, DIARY and SHELF, file the majority of the show's raw data. In addition to the minute-by-minute news agency coverage, the daily events diary cross-references and sub-divides entries under 80 categories. The electronic "shelf" stores scripts that are ready for transmission.

The scriptwriting software allows the journalists a full range of text editing facilities. With it they can not only draft scripts but amend, copy and delete them. Further software adds page numbers, presenters' names and ultimately checks that each script has been passed for transmission.

The administrative facilities allow the programme's executives to keep check of the story assignments made, their progress throughout the production cycle and the transmission order. In addition, every member of the production team has his or her own automated office area and, if required, individual programme housekeeping.

With the successful introduction of ENS in the BBC, plans are already well in hand to market the system worldwide. Systemsolve (Computer Services) Ltd - which developed the software - has demonstrated its capabilities in the USA and is working closely with all the major European TV networks to sell a system which is widely regarded as the 'Rolls Royce' of the industry.
The Government has adopted a comprehensive strategy to help promote office automation and to develop a competitive UK supply industry: the programme is recognised as being the most advanced in the world. One of the elements is a limited series of pilot systems in the public sector. The aim is to match suppliers of advanced integrated electronic office systems with public sector users whose requirements they satisfy. A group of office automation consultants from the Computing Services Association assisted the Department of Trade and Industry by preparing feasibility studies for each project and advising on its implementation. The Central Computer and Telecommunications Agency provides support at sites within central Government. User and manufacturer feedback information on operating experience at intervals over the two-year period of each trial. A separate team of consultants is applying new methodologies to assess the impact of the pilots. Their aim is to identify more closely the benefits to be gained by the implementation of integrated office systems. At the end of the whole exercise, the findings will be published as fully as possible.

This is the full list of users and suppliers:

**User**
- BBC Breakfast TV
- BBC Personnel Department
- Brighton Health Authority
- British Gas
- British Rail Engineering Ltd
- British Telecom Long Range
- Strategic Studies Division
- Cabinet Office
- Cambridgeshire County Council
- Central Electricity Generating Board
- Department of Trade and Industry
- Department of Transport
- Export Credits Guarantee Department
- Greater London Council (Scientific Services Branch)
- Leicestershire Constabulary
- National Economic Development Office
- Nottinghamshire County Council
- Science and Engineering Research Council
- Science and Engineering Research Council
- Strathclyde Regional Council
- Wales Gas

**Supplier**
- Hewlett Packard Ltd
- Racal Information Systems
- ABS Computers
- Aregon International Ltd
- Office Technology Ltd (OTL)
- Digital Equipment Co Ltd (DEC)
- Xionics
- IBM (UK) Ltd
- Burroughs Machines Ltd
- Rediffusion Computers Ltd
- Philips Business Systems Ltd
- GEC Information Systems Ltd
- Rank Xerox (UK) Ltd
- Future Technology Systems (Ltd) (FTS)
- Systime Ltd
- Plessey Office Systems Ltd
- Data Recall Ltd (now merged with OTL)
- ICL
- Honeywell Information Systems Ltd
- Logica VTS Ltd

The first installation went live in Spring 1982. The later projects are expected to run until late in 1985. As the projects progress, other factsheets in this series and summaries of findings to date will be published. If you would like to receive these, or require more information on the Government's office automation initiatives, please contact:

**Office Automation Unit**
**Information Technology Division**
**Department of Trade and Industry**
**Room 620**
**29 Bressenden Place**
**London SW1E 5DT**
**Tel: 01-213 4518/4491**
**Telex: 8813148 DIHQG**

More information about the planning implementation and evaluation of the programme as a whole is available from the Computing Services Association Office Automation Group. Contact:

**Planning and Implementation**
- Mr G Taylor
- Langton Information Systems
- 133 Oxford Street
- London W1R 1TD
- Tel: 01-434 1031

**Evaluation**
- Mr R Pye
- Economist Intelligence Unit
- Spencer House
- 27 St James's Place
- London SW1A 1NT
- Tel: 01-493 6711

For more information about this pilot project, contact:

**Supplier**
- Roy Hardcastle
- Business Development Group
- Hewlett Packard
- Nine Mile Ride
- Easthampstead
- Wokingham
- Berkshire RG11 3LL
- Tel: 0344 77 3100

**Site**
- Tam Fry
- British Broadcasting Corporation
- 250 Western Avenue
- Acton W3 6XJ
- Tel: 01-743 8000 Ex 5693