HEWLETT PACKARD

Making the connections in the United Kingdom

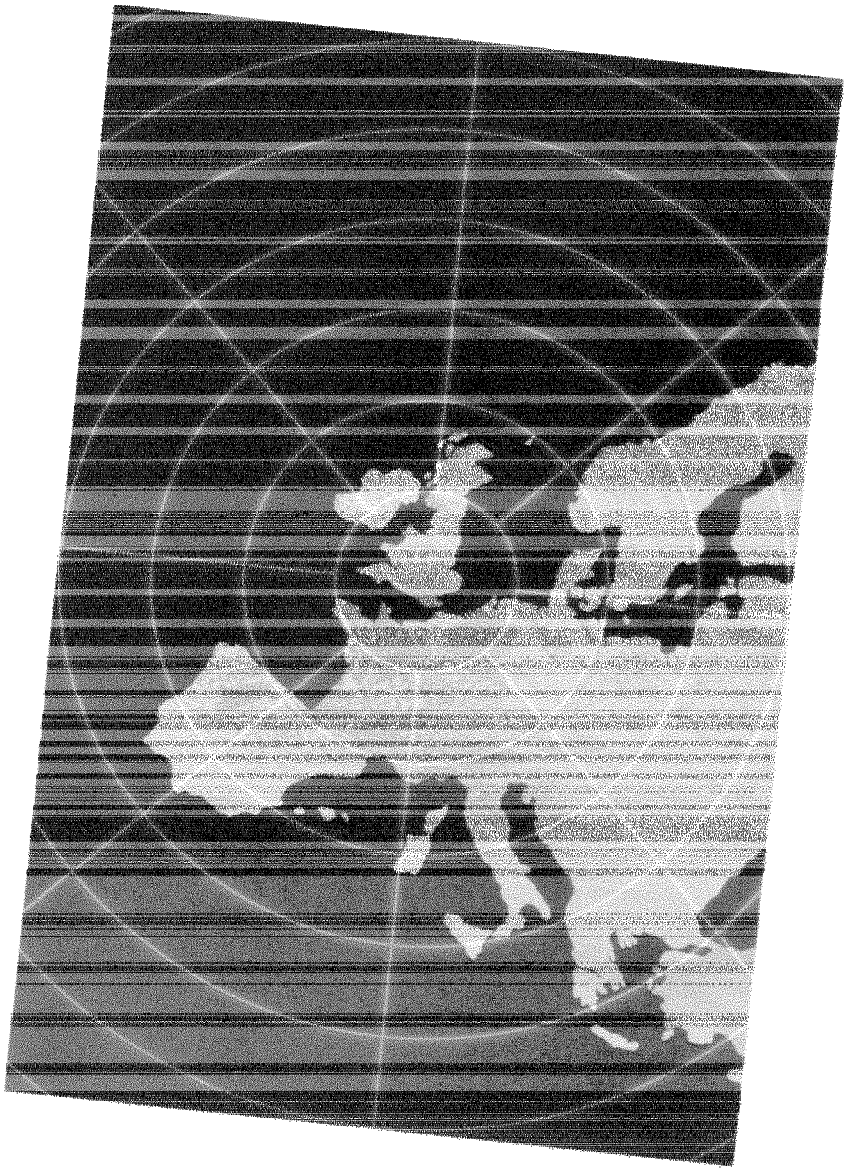
HP Professional Services

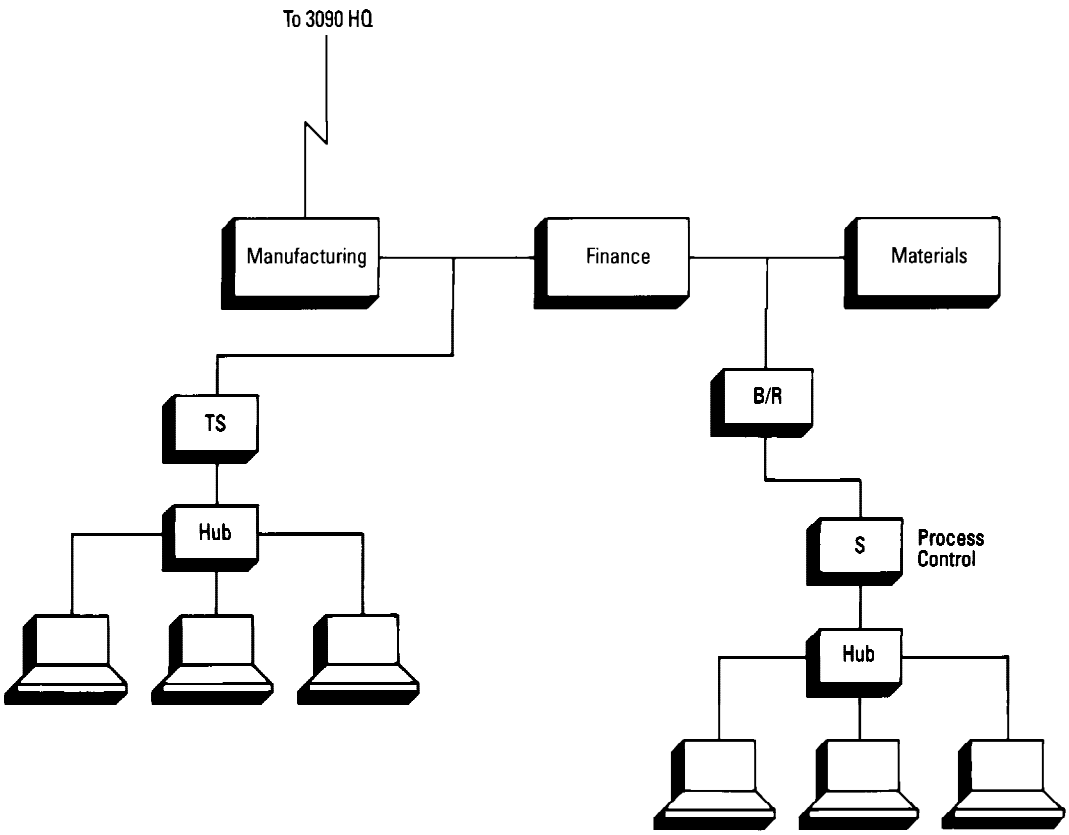
When 3M saw its strategy of a Computer Integrated Manufacturing System (CIM) come to fruition at its abrasives factory in Atherstone, Warwickshire, U.K., the company quickly found that the new system achieved manufacturing objectives.

3M's vision of a CIM environment involved linking all the computerised operations from the laboratory to shop floor, warehouse, and offices. Within months of going live, 3M has eliminated bureaucracy and cut order processing and work-in-progress times. Above all, it is able to get orders to customers faster.

From an early stage in the planning process, the company realised it had to put in a very effective network.

Terry Matthews, 3M's engineering manager responsible for automation, explained: "We needed an open system that could be accessed transparently from any PC or computer monitor in the building."





At 3M's Atherstone factory in the U.K., the combination of Hewlett-Packard's system design with quality components from 3M has resulted in a showcase manufacturing site.

In selecting new computers that could handle the dual needs of Management Information and Process Control, the company evaluated all the competitive offerings before ordering two HP 9000 computer systems.

With the decision made as to the basic building blocks of the plant's system, 3M called in the HP Site Design and Implementation services team to design the architecture of the network. 3M believed that Hewlett-Packard, with its intimate knowledge of the hardware, was in the best position to understand the technical complexities and manage the complete project to meet delivery dates. Where possible, 3M wanted to specify its own components in the design, but would not insist on this if advised to the contrary.

Fibre-optic solution

Hewlett-Packard designed a fibre-optic Ethernet network with an intelligent repeater module at its heart. This has several fibre-optic spurs, each running to HP TS8 terminal servers supporting some 100 devices around the site.

The team was invited to try out 3M's components at its customer services laboratory and was pleased by the products, tools, and equipment demonstrated. As a result, 3M's plugs, sockets, ST connectors, and fly-lead assemblies were all used in the installation.

Redundancy is built into the system. For example, double cable runs are used in critical parts of the factory. Costs have been kept down by the use of existing cable routes for the fibre-optic network.

Furthermore, fibre-optic cable is particularly suitable in a factory environment. It is neither sensitive to electromagnetic interference nor poses a risk in a hazardous environment.

Hewlett-Packard took complete project management responsibility for the supply and installation of the network to its exacting standards of service. Where HP does not have relevant skills in house, it calls in experts who have been thoroughly vetted and have proved their capabilities. All suppliers are continuously monitored in all aspects of their business—not just technical competence. The 3M system involved using the services of tried and tested expertise in networking products and installation services.

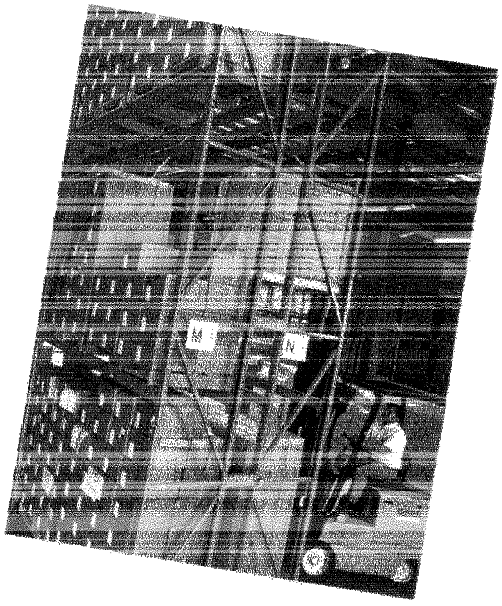
Hewlett-Packard went on site at the end of 1989 and according to Terry Matthews: "They completed the work quickly and effectively. The system has been operational for 6 months with no problems at all."

The system meets requirements to constantly improve quality and customer service—a philosophy shared by 3M and Hewlett-Packard. Indeed, both companies are committed to BS 5750 and ISO 9002.

Terry Matthews feels that the HP Site Design and Implementation services team enabled Hewlett-Packard to provide a complete service to 3M, ensuring a smooth implementation. HP supplied the hardware and advised on application software and network development.

"We could combine excellent networking products with the system designed by HP to put together a solution that we are very pleased with."

Terry Matthews
Engineering Manager
3M



HEWLETT PACKARD

United States:
Hewlett-Packard Company
4 Choke Cherry Road
Rockville, MD 20850
(301) 670-4300

Hewlett-Packard Company
5201 Tollview Drive
Rolling Meadows, IL 60008
(708) 255-9800

Hewlett-Packard Company
5161 Lankershim Blvd.
No. Hollywood, CA 91601
(818) 505-5600

Hewlett-Packard Company
2015 South Park Place
Atlanta, GA 30339
(404) 955-1500

Canada:
Hewlett-Packard Ltd.
6877 Goreway Drive
Mississauga, Ontario L4V 1M8
(416) 678-9430

European Headquarters:
Hewlett-Packard S.A.
Marcom Operations Europe
P.O. Box 529
1180 AM Amstelveen
The Netherlands
(31) 20 547 9999

Japan:
Yokogawa-Hewlett-Packard Ltd.
15-7, Nishi Shinjuku 4 Chome
Shinjuku-ku, Tokyo 160
(03) 5371 1351

Latin America:
Latin American Region Headquarters
Monte Pelvoux No. 111
Lomas de Chapultepec
11000 Mexico, D.F. Mexico
(525) 202 0155

Australia/New Zealand:
Hewlett-Packard Australia Ltd.
31-41 Joseph Street, Blackburn,
Victoria 3130, Australia
(03) 895 2895

Far East:
Hewlett-Packard Asia Ltd.
22/F Bond Centre, West Tower
89 Queensway, Central, Hong Kong
(852) 8487777

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