

IBM

IBM System/390

Empowering your enterprise



Turning business realities into advantages

**Information processing
should reflect an
enterprise's operating
conditions**

Wherever your enterprise operates ... whatever that business may be ... your organisation probably faces worldwide opportunities and competitive pressures. In the past decade alone, business opportunities and challenges have escalated and become global in scope. As a result, you may be among the executives who routinely need to:

- Make decisions about engaging in new market initiatives, strategic partnerships, joint ventures, mergers or acquisitions.
- Enable your enterprise to respond to new opportunities by helping your diverse individual users, workgroups and systems to exchange vital information easily and more quickly.



**The concept behind the
IBM ES/9000 family
enables information
processing systems to
be fully integrated**



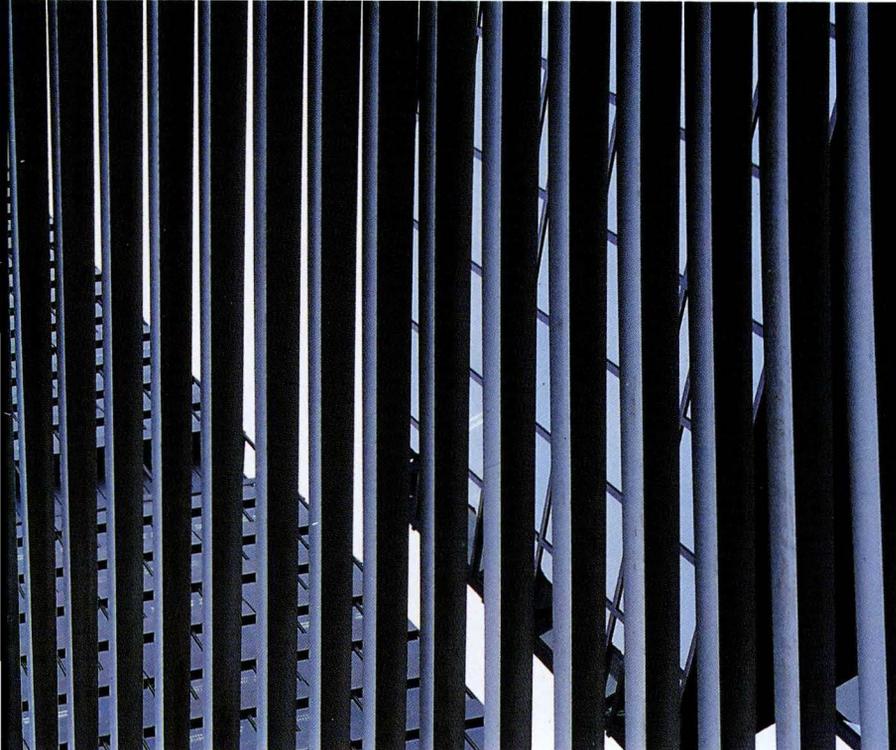
- Permit suppliers, subsidiaries and field offices to exchange information with your head office – and often with one another, as well.
- Control costs.
- Deploy personnel for maximum effectiveness.

An opportunity to transform your enterprise

Issues such as these represent an implicit opportunity to transform and streamline your enterprise.

Often, such transformation is welcome – especially when fine-tuning your information infrastructure can enhance tomorrow's success by enabling you to:

- Get the information needed to make rapid decisions and respond quickly.
- Simplify access to resources, facilities and systems.
- Protect against the increased corporate security risks that accompany information exchange within and beyond enterprise boundaries.
- More easily manage multiple central, remote and backup computing sites and complicated communications technologies.
- Exploit competitive-edge application and networking opportunities without impeding your business growth by exceeding your resource capacity.



**Information processing
should be used
uniformly as a tool
throughout the
enterprise**

Powering up your enterprise in the new era

The excellent balance between price and performance makes entry into the mainframe class an attractive proposition

A widespread call for increased access and control

Executives worldwide tell us that barriers to corporate success must be removed. They want fast, reliable and easy access to information within their enterprises. They also seek the freedom to share data among manufacturing, marketing, finance, head office, suppliers and customers. And they want to manage and control the diverse systems throughout their enterprises.

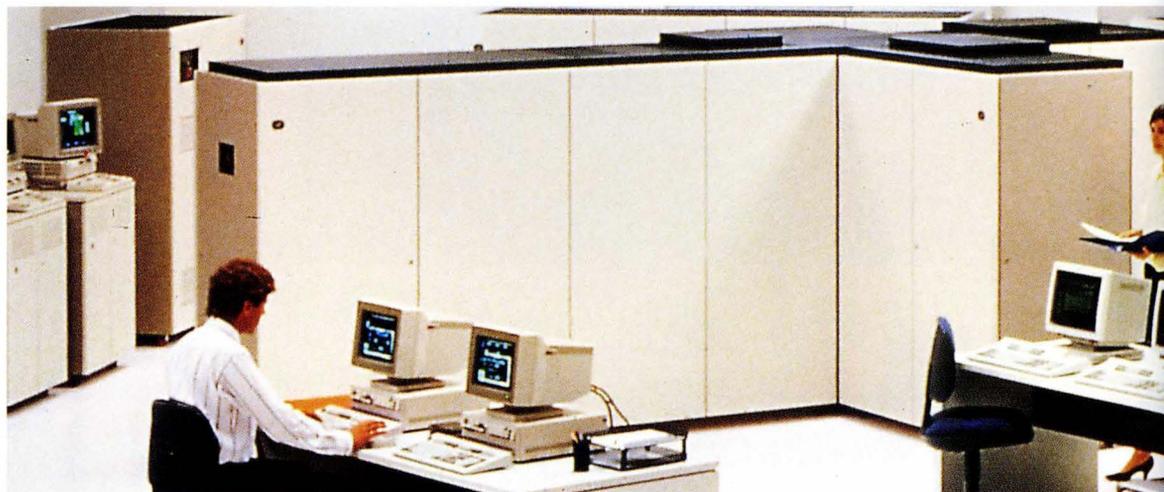
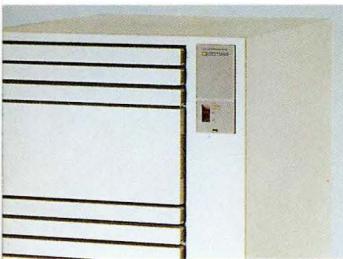
IBM listened carefully as business leaders around the globe told us their concerns, needs and requirements. From them, we formed the foundation for a new era in computing.

With the advent of IBM's new era in computing you can equip your enterprise with the power to increase productivity, reduce costs, develop global markets, automate appropriate procedures, shorten development cycles and respond to customers more quickly and effectively. This new era encompasses:

- The IBM System/390*, a new family of growth-oriented, high-performance computing systems and software
- Broader, more comprehensive information access in a secure environment
- Innovative technology supporting your business vision and enhancing your current information assets
- Increased managerial control over diverse network and system elements and functions.

A solid foundation for increased access and growth

IBM System/390 provides the power through a range of new systems and products, as well as communications routers and switching devices, networking solutions, advanced applications and a wealth of ancillary services. Separately in some instances, together in others, these offerings provide a solid foundation. And this foundation enables your applications and networked systems (non-IBM as well as IBM) to grow in sophistication and accessibility as you strategically deploy them to achieve such enterprise-wide goals as increased market share, improved profit margins, higher quality, greater customer satisfaction and heightened competitiveness.



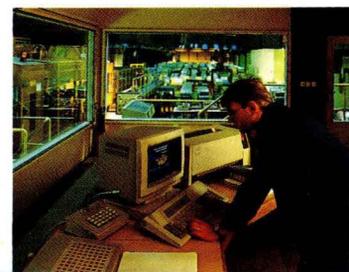
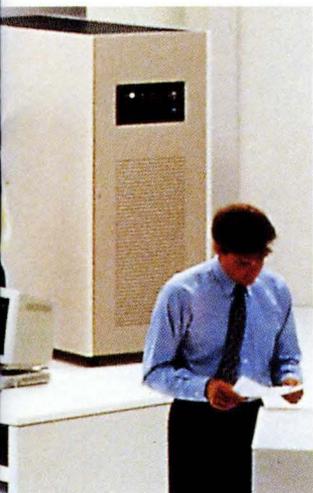
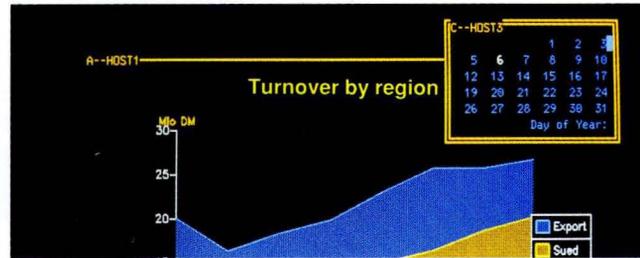
The following examples illustrate how our innovative products and architectures can advance your business vision – and help you improve your company's performance:

- Retail buyers can gather the latest sales trend information from multiple worldwide sites through our new systems, software and networking solutions.
- International bankers can encrypt sensitive electronic funds transfers for maximum confidentiality and security.
- Government employees can consolidate and graphically depict budget authorisations and actual expenditures on an agency or departmental basis by using our decision-support offerings and

integrated office systems.

- A food company's management team can analyse information on field inventory and brand movement on a daily basis.
- Manufacturers can give their distributors online catalogue access through our new systems and networking solutions.
- Educational systems can be accessed by home - or office-based users for interactive skills tutoring in languages or mathematics.
- Clothing importers can use our new systems and IBM business partner software to track imported finished goods and letters of credit, and to exchange vital information with their international suppliers by electronic data interchange.

Far-reaching technological innovations lend the traditional computing centre a whole new image



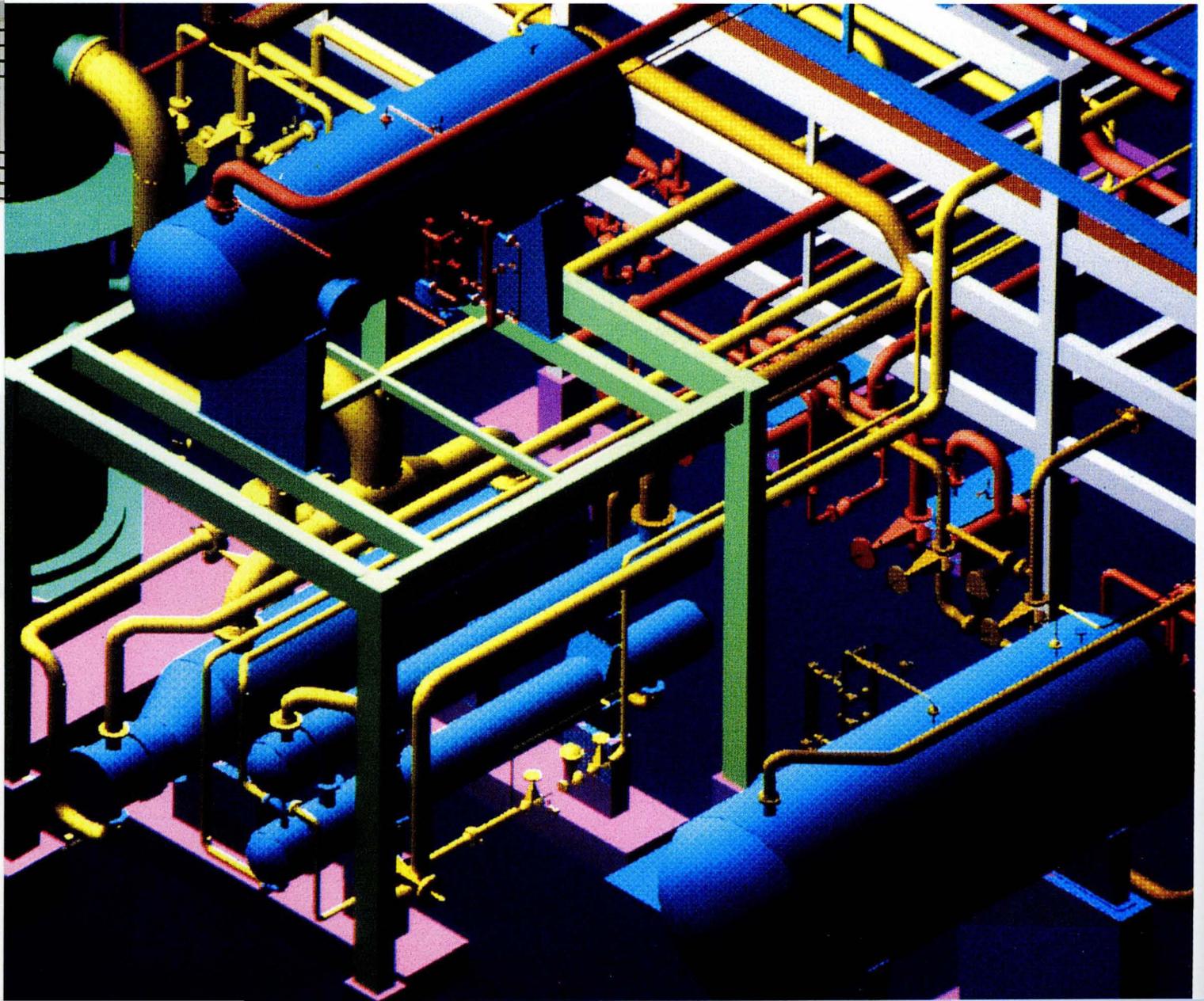
Designed for
the '90s

**Powerful workstations
reach a new level of
performance through
integration in high-
speed networks**

**Innovative systems and services to advance
your business vision**

Scenarios such as these can be multiplied many times, depending on country, industry and business strategy. In all cases, customer value drives our efforts to help you realise your enterprise goals. No matter what your industry or business plan may be, here are some of the ways that we can help you empower your enterprise:

Firstly, there is the growth potential and performance power of the new IBM System/390 computing family. System/390 includes the new Enterprise System/9000 (ES/9000)* processor models, as well as enhanced system hardware and new operating system software.



System/390's broad range of processor models offers high performance and significant growth potential, enriching your existing investment in systems, data, applications and personnel.

Your employees can use the System/390 family to gain wider, more comprehensive information access, within and beyond enterprise boundaries. This gain is the result of our enriching and streamlining three operating systems – MVS, VM and VSE – and using common communication protocols and network architectures in the design of our new systems.

You can also gain a more comprehensive managerial reach over your network performance and resources. This capability derives from network solutions that integrate diverse local area networks and offer comprehensive graphic views of the resources they contain ... new system management directions ... and varied security options.

Designed for the '90s, these powerful IBM computing solutions incorporate many valuable technological innovations:

- A unique integrated cryptographic feature
- Fast, lightweight fibre optic cabling
- Environmentally efficient systems.

Our products integrate the systems that process your enterprise information with other office systems, departmental systems, client-server LANS, workstations, workgroups and departments. For example, our Enterprise Systems Architecture /390 (ESA /390)* employs logical and physical interconnections that enable designers working at varied geographical locations to gain faster access to electronically dispersed engineering changes. As a result, they can increase productivity and shorten the product development cycle.

**It no longer matters
if terminals belong to
different departments
or are spread across
numerous sites at home
and abroad**

Accommodate cooperative and distributed processing

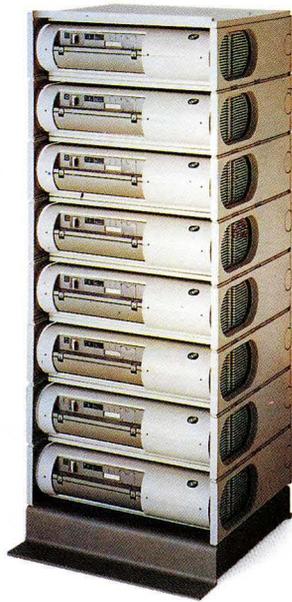
The new IBM ES/9000 processor models and operating system software also accommodate cooperative and distributed processing. As a result, our new systems move you closer to the day when any individual computing system or workstation in your enterprise can interact with any other – even if you have hundreds of local area networks, each with hundreds of workstations.

Your information systems organisation can use standard IBM platforms to develop enterprise-wide applications and link appropriate enterprise personnel with your outside clients and suppliers. And workgroups in one enterprise department or division can share information with those in other departments or divisions, regardless of whether they are on the other side of the site, across the country or in a remote corner of the globe.



Key computing attributes of the empowered enterprise

The possibilities available through fibre optics mean a system's I/O devices no longer have to be concentrated in one place



Operational flexibility

Your IBM System/390-empowered enterprise can accommodate changes far more flexibly than ever before. Applications can be shifted from one large host system to another ... devices such as disks and tapes can be changed with minimal disruption to regular operations ... and computing resources can be located wherever space permits.

The fibre optic technology underlying channel connections in our systems and controllers requires far less room, an appealing alternative to the limits imposed by the heavy, bulky cabling that has long served the industry. Our new channel technology also permits data transmission over distances of up to 9 kilometers (5.4 miles) – a significant increase over the former 122 meter (400 feet) standard. As a result, you can now locate system processors in one part of your business complex, and devices for those same systems can occupy space in another building or complex. You gain further flexibility because you can access data from a variety of systems and locations.

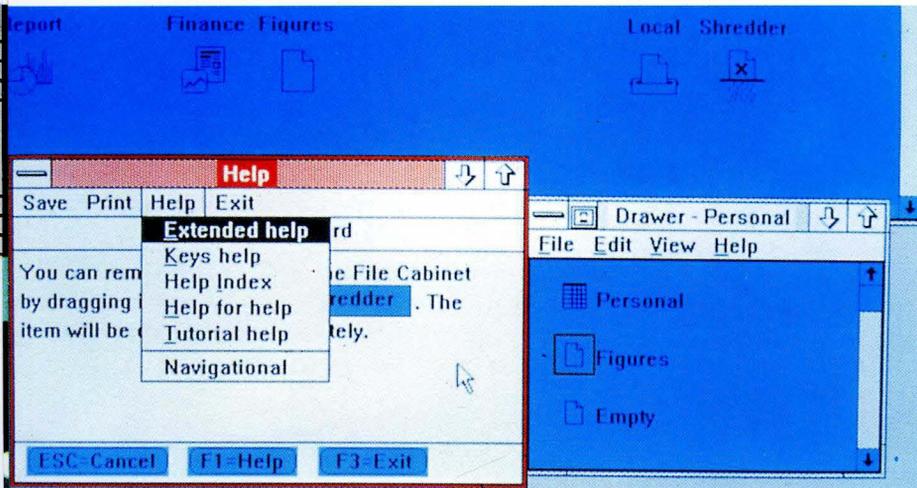
IBM's new systems also provide your enterprise with a cooperative processing facility, coupling the benefits of personal computing with the performance, power and control of host-based computing. Cooperative processing allows applications to be split between workstations and hosts.

Increased security options to protect your enterprise

You want your information to be accessible; yet, the more critical that information is to the operation, the more sensitive it becomes. The System/390-empowered enterprise can provide the degree of security protection you require, at workstation, host and network levels, combining ease of use with system-managed security.

Broader, simpler system and network management

Our new products are designed to respond to your requirement for broader, simpler, enterprise-wide system and network management. If improved operational management, lower costs, and increased system availability and responsiveness are high on your agenda, our new products and services can meet your needs.



Powerful system growth and expansion

The 18 models in the IBM Enterprise System/9000 (ES/9000) family offer outstanding room for growth. This family includes compact, rack-mounted models, as well as both air-cooled and water-cooled, frame-mounted models, all sharing a common architecture.

IBM's expanded VSE/ESA software offering for the ES/9000 family accommodates fast business growth, while providing the option to migrate your enterprise more easily into the MVS/ESA operating system environment. The ES/9000 family offers many upgrade options from your existing systems, enhancing your IBM computing investment.

Advanced applications

Information processing has moved from automating 'back-office' applications such as accounting ... to front-office applications such as on-line reservations systems ... to advanced applications that can give you a competitive edge, like image processing and computer-integrated manufacturing.

Image processing for increased productivity

One leading bank has described the potential of image processing in the financial community as "the most significant banking development since the computer". Today, banks can capture cheque images at the rate of 40 per second. And now, IBM is making such applications more widely available by basing them on standard system platforms.

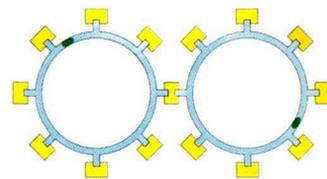
As a result, image processing is gaining popularity in other industries and practices as well. Advanced image processing can include photos, engineering drawings or even medical images, as well as cheques and paper. This advanced application area offers the potential to increase transaction volumes handled by individual employees by as much as 30 percent.

Expanded capability for technical applications

Executives are sometimes surprised to learn that technical computing procedures are as useful in commercial applications, such as financial forecasting and production scheduling, as they are in complex scientific applications. Such applications often require the processing of vast quantities of stored information. Because the ES/9000 systems also offer

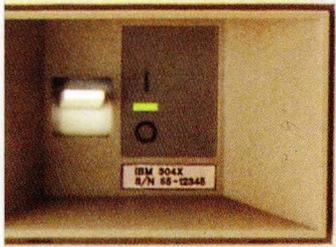
fast storage access, they can act as both compute- and file-servers, working with high-speed networks and powerful programmable workstations.

The new ES/9000 family offers significantly improved scalar capabilities and, on most models, a vector facility as well. This increases high-speed computational capabilities for more numerically intensive scientific and technical applications. Our largest ES/9000 model can be expected to offer from 2.0 to 2.8 times the computing capability of our current largest system with the Vector Facility.



**A well-designed concept
for the protection of
data provides a high
degree of security**

Achieve your
goals using our
solutions

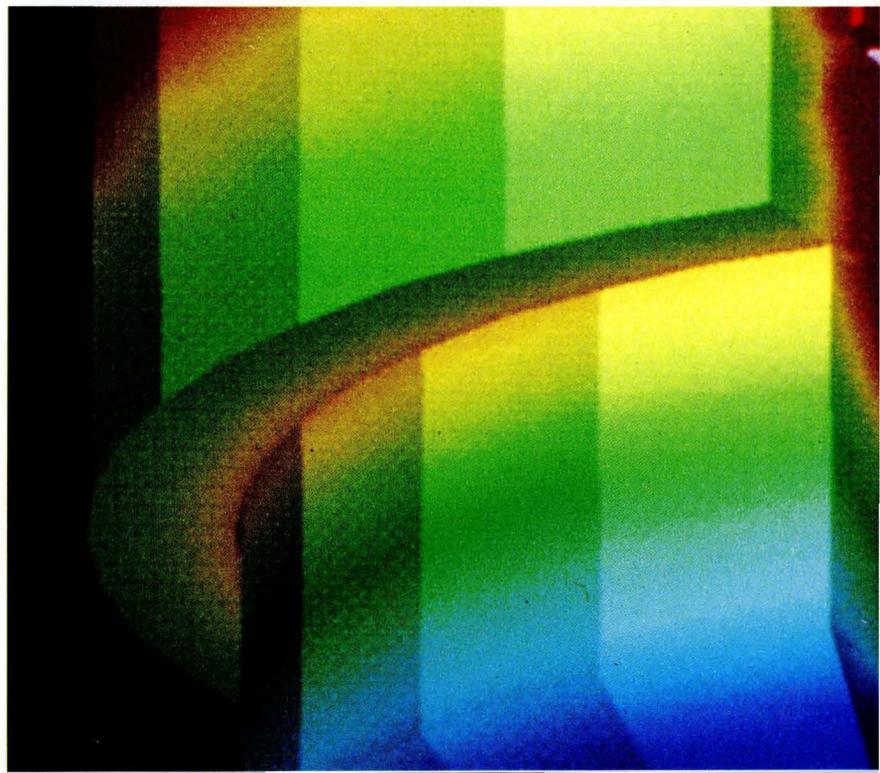


**Applications in the
areas of investment and
production planning,
chemical engineering,
structural analysis and
simulation require extra
performance**

Bottom-line benefits

Together, IBM's ES/9000 processor family, efficient channel architecture, powerful operating system software, diverse security offerings, communications and networking products and advanced applications constitute a complete system approach to satisfying the information systems challenges inherent in supporting your business goals. With these products, you can realise the bottom-line benefits of such cost-saving innovations as the implementation of fibre optic technology.

For example, one company estimates that it can save millions of pounds because this technology does away with their need to construct a new data centre ... and it can save millions more by increasing systems availability at all levels. In addition, these products reflect IBM's continuing commitment to high-quality solutions that answer your needs and concerns.



Worldwide support for products and services

IBM's leading-edge solutions and service offerings span the total computing spectrum, including home computing, powerful workstations, numerically intensive and image-intensive processing, powerful communications and storage offerings, and more.

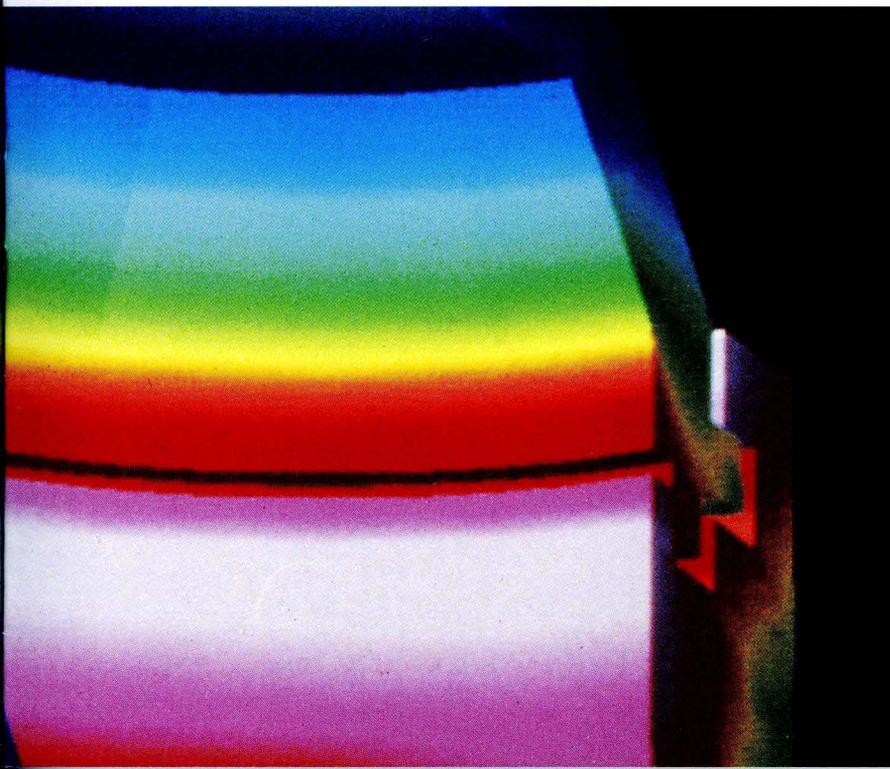
We service hardware and software systems almost anywhere in the world. And our products are backed by our comprehensive support programmes. These include consulting, capacity planning, network planning, site preparation, education, software and hardware conversion, disaster recovery, hardware and software maintenance and facilities management.

And as you choose specific IBM offerings to provide solutions for your enterprise, IBM can fulfill your financing needs – whether funding is required locally or around the world.

Your IBM representative will be happy to give you details about how the System/390 family and related products and services in systems, software, communications and applications can empower your enterprise from top to bottom.



Solutions and services covering the whole spectrum of information processing





BY APPOINTMENT TO
HER MAJESTY THE QUEEN
SUPPLIERS OF ELECTRIC
AND ELECTRONIC INSTRUMENTS
IBM UNITED KINGDOM LIMITED
PORTSMOUTH



BY APPOINTMENT TO
HIS ROYAL HIGHNESS THE PRINCE OF WALES
SUPPLIERS OF INFORMATION SYSTEMS
IBM UNITED KINGDOM LIMITED
PORTSMOUTH



THE QUEEN'S
AWARD FOR
EXPORT
ACHIEVEMENT



THE QUEEN'S
AWARD FOR
TECHNOLOGICAL
ACHIEVEMENT

IBM United Kingdom Limited
National Enquiry Centre
389 Chiswick High Road
London W4 4AL
Telephone 081-747 0747

Registered in England: No. 741598
Registered Office: PO Box 41
North Harbour, Portsmouth
Hampshire, PO6 3AU

IBM is the Registered Trademark of
International Business Machines
Corporation.

*IBM System/390, Enterprise System/9000
and ES/9000 are trademarks of International
Business Machines Corporation.

This publication is for general guidance only.

Printed in England by
Cedar Colour Limited
Chandlers Ford, Hants