Digital Research

CORPORATE PROFILE

"We were there, in the beginning, when the technology came together to bring a new generation of computers into being.

"CP/M® was first commercially licensed in 1975. It was the first disk-based, portable microcomputer operating system. It's evolved through a number of phases since then, and so have we. We've been deeply involved at every level: with the innovators who were building their own systems; with the software writers, and with the major hardware manufacturers.

"Because we understand what it takes to compete in each of these areas, we've brought in professional management expertise and built an effective corporate structure. The talent and the organization both have to be there.

"More than a million people are now using CP/M-controlled systems, and the microcomputer generation is still in its infancy. We're in an excellent position to grow to a healthy maturity, as the market does."

Gary Kildall, President.

Microcomputers have exploded into both consumer and professional markets. Since the first production models were introduced in 1975, they've made the transition from novelty to necessity in homes and offices all over the world.

In 1981, microcomputer hardware sales passed the two billion dollar mark. Sales of microcomputer operating systems software amounted to more than $500 million. Yet analysts estimate that no more than 1% of the home computer market has been penetrated. No more than 2% of the microcomputer market has been tapped for distributed processing within large corporations. And only 5% of the small business market has been reached.

From the beginning, Digital Research has been the pivot point bringing equipment manufacturers and software developers together, through the CP/M operating system. As CP/M took off with those who led the industry in creating business applications software, Digital Research was working to strengthen acceptance with hardware manufacturers. As more and more microcomputers went into users' hands under CP/M operating systems, more and more CP/M-compatible software was ready to greet them on retail shelves.

The result of this industry-wide acceptance has been the emergence of Digital Research as the world's leading developer of microcomputer systems software.

In 1981, we made the strategic decision to complement our operating systems by moving aggressively into programming languages with a strong focus on the commercial market.
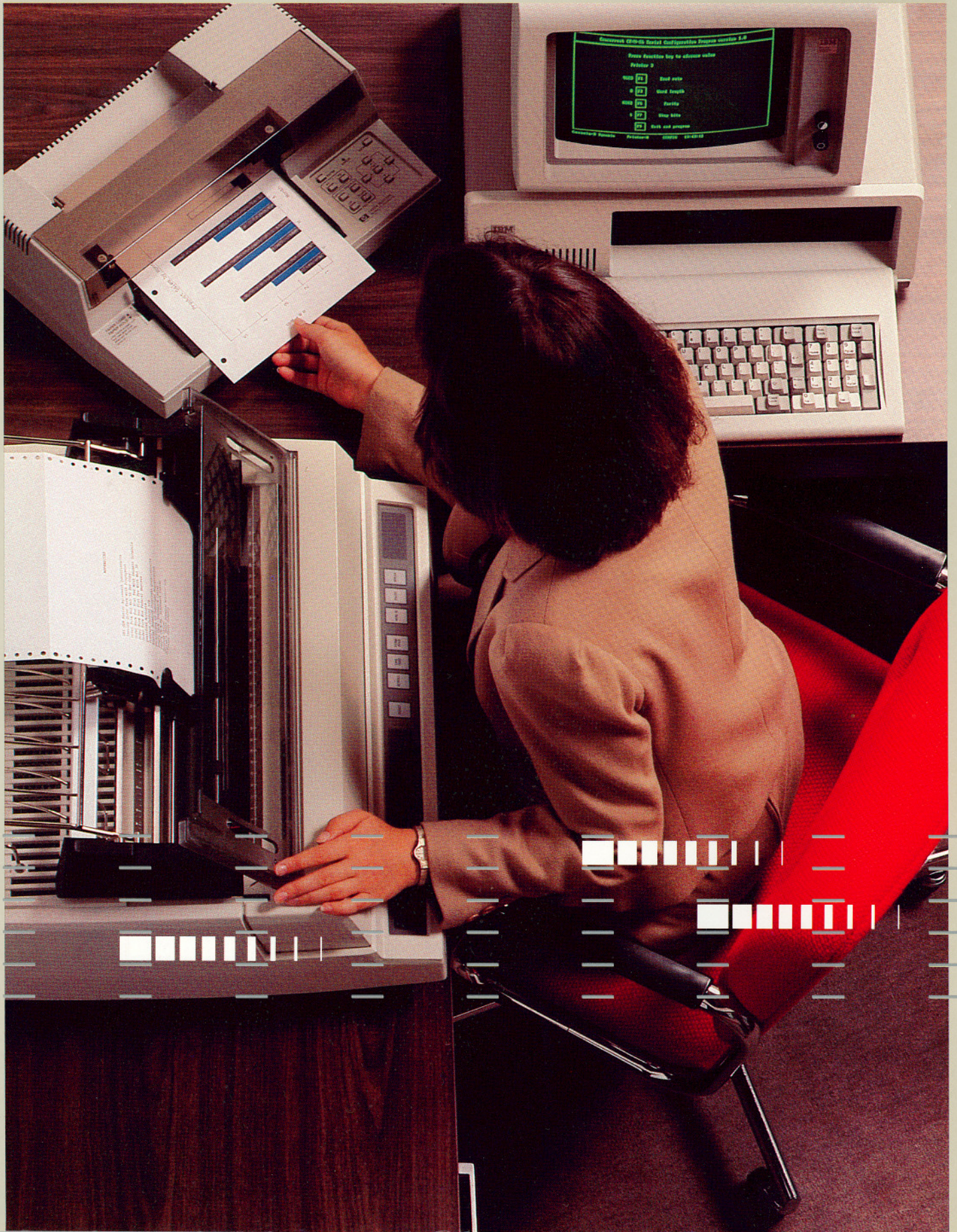
With a strong leadership position secured in languages and operating systems software, Digital Research has entered the graphics market to meet a vital need in the fastest growing area of microcomputer software development.

The microcomputer has removed the walls that once kept computers confined to systems rooms. Now that the streamlined machines are out there on millions of desktops, we are supplying the software tools to make them more and more productive.

"We're bringing CP/M standardization and portability to the 16-bit world now, along with a full family of languages and graphics tools. Our position is clearly to continue establishing the software standards that are needed for long term, wide scale software market growth." John Rowley, Chief Operating Officer.

C P/M was the first tool to establish an effective dialog between man and micro. Since then, contributions have come from many other directions, and CP/M has evolved to keep pace.

The key to the success of CP/M as a widely accepted operating system is compatibility: hardware compatibility, data interchange compatibility, and the widest range of compatible software.

A program which works on one CP/M system will work on another CP/M system even if the disk, terminal and printer are all different. One system could have an 8080, a minifloppy, a teletype and a matrix printer, while another could have a Z-80, a hard disk, an intelligent terminal and a letter quality printer. CP/M hides the differences between these devices, so the application programs perceive the systems to have the same capabilities.
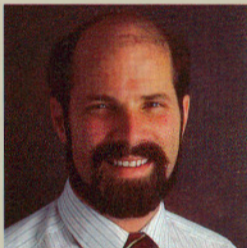
Digital Research offers the flexibility and portability of CP/M in a complete family of operating systems to fit the special requirements of a number of different kinds of processing environments: single-user, single-tasking or multi-tasking, multi-user and networking.

As microcomputers are becoming available with expanded memory and other features which make them more powerful, more efficient and faster, a new generation of operating system software must make it possible to take advantage of the power and range of the new 16-bit machines.

Digital Research has filled this need with CP/M-86, and an expanding range of companion products to bring vital CP/M compatibility to 16-bit software developers and users.

Concurrent CP/M,™ for example, allows users of 16-bit machines to run more than one application program at a time. This offers tremendous productivity advantages in automated office environments where one person, working at one personal computer console, can integrate word processing, order entry, accounting and financial modeling or graphics, with tremendous gains in the speed and quality of the work they're doing.

Concurrent CP/M also streamlines the work of the professional programmer, who can now work on three or four programs simultaneously, editing one while the computer compiles another and prints a third.

"Portability and user friendliness are the focal points for future operating systems. CP/M is growing to meet those needs." Thomas Rolander, Vice President, Operating Systems Division.

Through development and acquisition of the most successful commercial languages on the market, Digital Research is the largest commercial language supplier in microcomputer software.

Our strategy in building a complete programming library has been to provide the best languages available. Software writers can now choose from a complete library of proven tools for commercial software development that in every case reflect the highest quality in the industry.

In addition to this assurance of quality, the Digital Research library of languages offers software writers the transportability and compatibility inherent in the CP/M family of operating systems. Programs written in a Digital Research language run virtually unmodified across the entire range of computers on which CP/M is running.

This means an application program only has to be designed once to reach the widest possible range of computers.

Program maintenance costs are reduced, and software developers can release updates or new products to all their users at one time, with just one development cost.

CBASIC® has been used in more commercial business applications than any other microcomputer language. It leads the industry in dollar volume, and promises to remain the standard for commercial programming.

Our PL/I is the natural link to mini and mainframe computer applications. Pascal/MT+™ has gained acceptance as the fastest, most complete, high performance Pascal available. Soon the Digital Research Language Library will also include FORTRAN and C for the commercial market, and LOGO and LISP for the educational market.

Digital Research will continue to focus on the commercial languages used by the more than 3500 Independent Software Vendors who supply consumers, business and industry with the applications programs they need.

By helping ISVs succeed, Digital Research also helps hardware manufacturers and systems integrators reduce software development time, and assures them a growing supply of compatible application software.
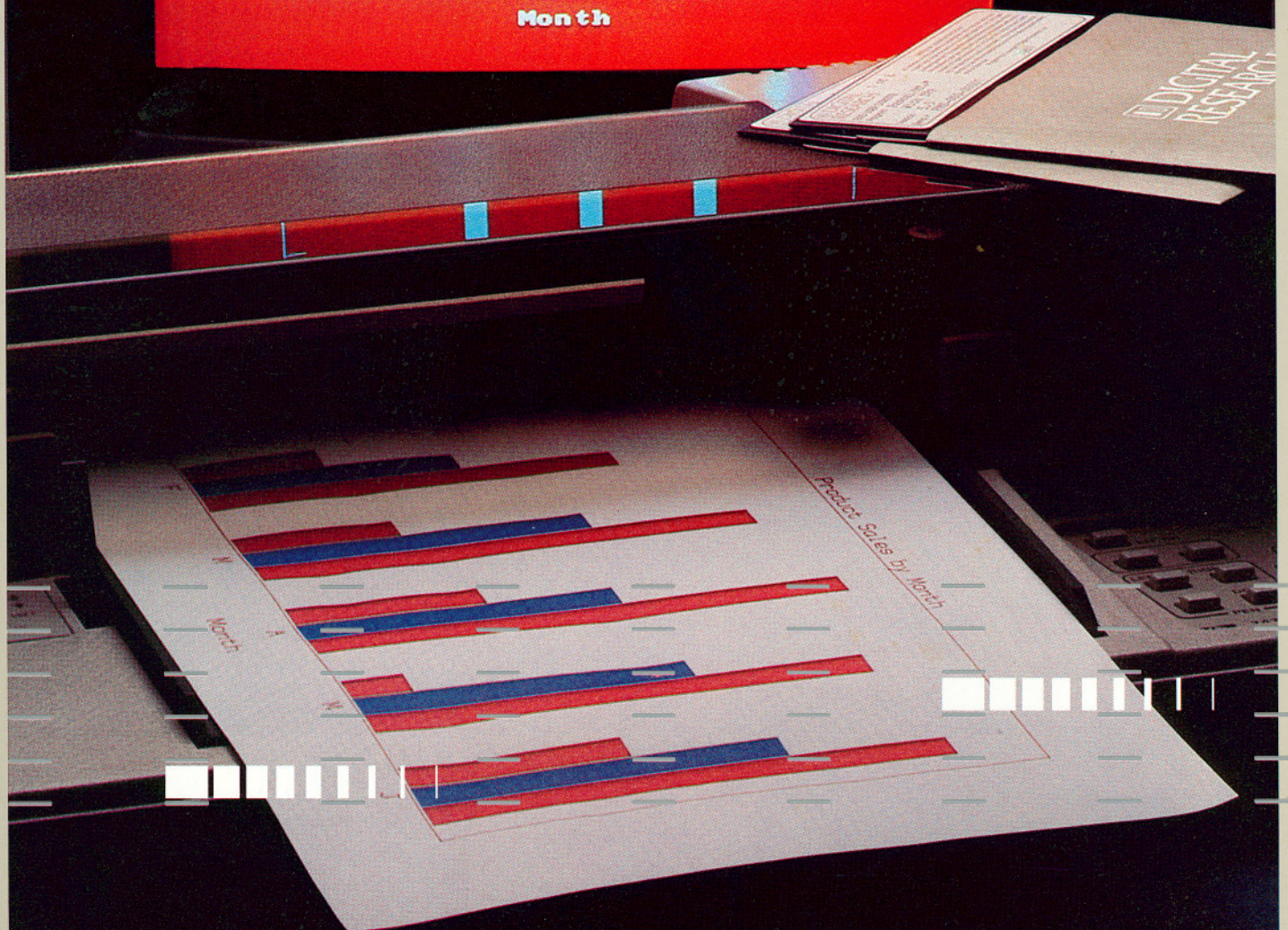
One of the ways we help is by developing productivity tools that make programming in any Digital Research language faster, easier, more effective and more profitable. These are language-independent tools that operate in single-user, multi-user, concurrent and networking environments to facilitate the programming process.

Access Manager™ and Display Manager™ can be used with any Digital Research language to provide more sophisticated file access and "friendlier" displays, in much less time.

"Our tools are designed to help reduce the growing backlog of applications needed by business, using today's standard languages." Gordon Eubanks, Jr., Vice President, Language Division.

Graphics

The emergence of single-chip graphics display processors and the declining cost of memory have opened the door for graphics to play a much larger role in business, science and educational software.

The demand for graphics application programs on microcomputers is now growing rapidly as users become aware of the power and convenience available.

The challenge for microcomputer systems software designers is to create common denominators that will promote the portability of applications.

Common graphics language constructs and device interfaces are needed to achieve device-independent graphics application programs. Just as CP/M has provided the basis for non-graphic program portability, the opportunity exists now for leadership in graphics program portability.

Digital Research has taken the first steps to give the commercial marketplace standard graphics interfaces:

GSX™(Graphic System Extension) is the foundation of the Digital Research graphics strategy. This extension to the CP/M family of operating systems provides a graphics protocol that is consistent with the emerging ANSI Virtual Device Interface (VDI) standard. GSX also includes the software modules required to interface a variety of graphics devices such as plotters, printers and CRTs.

This is the beginning of what will be a complete family of device-independent graphics software tools designed to operate effectively in the memory space of 8- and 16-bit computers.

"The standardization of graphics software interfaces will have a profound impact on the future utility of microcomputers. We're committed to assuming a leadership role in this process with CP/M Graphics."
Fred Langhorst, Director of Graphics Products Group.

Because Digital Research has aggressively sought to acquire both superior products and the creative talent behind them, the company is in a unique position to maintain industry leadership as an innovator as well as a producer of consistently high quality software products.

Well-funded, well-directed research is unquestionably the heart and soul of the organization. Management has been structured to encourage the entrepreneurial creativity that brought us to this point. With a solid, professional management team leading Marketing and Operations, Research & Development has the strong financial foundation, the powerful creative leadership and the management attitude to reach confidently into new territory.

Digital Research has historically led the way in bringing useful interactive tools to the 8-bit market, from the first microcomputer operating system to today's high level compilers.

The CP/M family of operating systems will continue to set standards, as new language and graphics offerings and advanced productivity tools make programming easier, faster and more effective.

The direction now is toward giving the microcomputer software industry the tools it needs to move quickly into 16- and 32-bit systems.

We are also at work in industrial and process control technology, speech synthesis, and software in silicon. We have already succeeded in putting a complete control program on a chip.

The future will see us offering products which greatly improve the ease with which people interact with microcomputers. As hardware technology evolves to offer more capability in less space, we will continue to make parallel advancements in operating and development software systems.

"We've gathered an extraordinarily talented group of scientists, within a structure conducive to maintaining creative leadership."
Michael Lehman, Director of Research & Development.

International Field Services.
Digital Research is the first microcomputer software company to establish international field operations for sales and technical support. Our international services are supported from field operations headquarters in Palo Alto, California, and include fully staffed offices in Los Angeles, California; Boston, Massachusetts; Chicago, Illinois; London, England; and Tokyo, Japan, with offices opening soon in Dallas, Texas; New York, New York; Paris, France; and Frankfurt, Germany.

From these field offices, Digital Research gives educational support, as well as technical and sales assistance to hardware manufacturers, distributors and our international customer base.

Headquarters Customer Support. Our Headquarters product support staff answer hundreds of telephone and mail inquiries every day, providing information on available application programs and offering detailed product information.

Technical help is also available to our OEMs, distributors, dealers, ISVs and end users, worldwide, through our support center and electronic bulletin board services.

We communicate regularly with hardware manufacturers and with thousands of ISVs and end users through newsletters that help answer technical inquiries, announce new products and updates, and carry industry news.

To help manufacturing companies, software vendors, dealers and individual users make the most of our products, we offer frequent seminars at Digital Research headquarters in Pacific Grove and in other facilities throughout the world.

These seminars cover marketing and retailing topics of special interest to distributors and dealers, as well as technical issues for hardware engineers, computer science educators and software developers.

Digital Research also produces a catalog of CP/M Compatible Software which represents the Independent Software Vendors we work with, and serves as a valuable tool for software retailers and applications software customers.

As our user base grows beyond one million, we're finding new ways to remain responsive to customers' needs and questions on an individual level, as well as through distribution channels.

Retail Support. As more and more retail outlets open, part of the solution in representing the product well, positioning it accurately, and demonstrating it effectively, is in packaging.

Digital Research products are being packaged to give retailers and purchasers the help they need at the point of sale: streamlined, simplified, professionally prepared documentation; CP/M library demonstration stations for retail display; attractive merchandising wrappers that summarize and highlight product features and applications.

"Our technical and marketing support programs, like our products, are designed for the long term." Dorothy McEwen, Vice President, Operations.
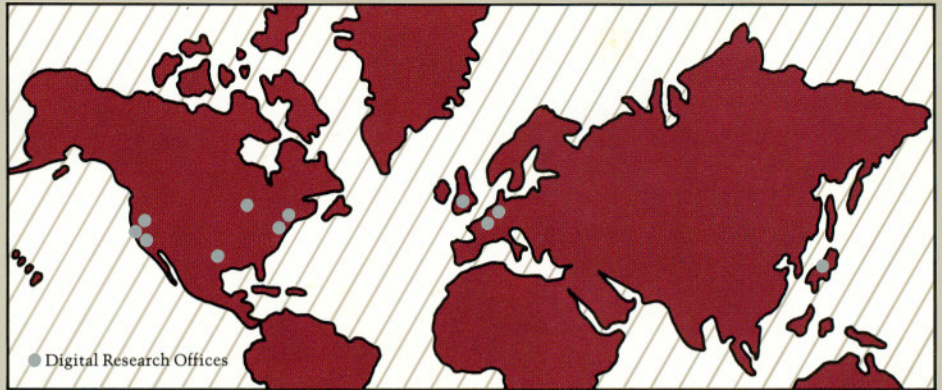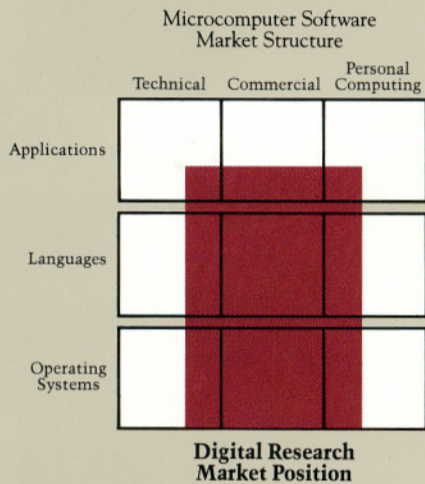
Within the last two years, Digital Research revenues increased 5.5 times. Current annualized sales are in excess of 20 million dollars.

Conservative estimates project an 8 billion dollar microcomputer market by 1985; by 1990, a 25 billion dollar market in microcomputer software, alone, with more than 6 million microcomputer systems in operation by then.

We plan to continue to position Digital Research

Microcomputer Software
Market Structure

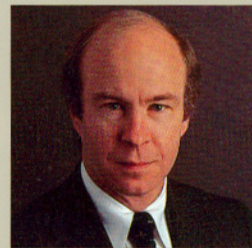|	Technical	Commercial	Personal Computing
Applications			
Languages			
Operating Systems			

**Digital Research
Market Position**

products within the business/professional/commercial software segment of the market, although certain products will overlap to some extent into the technical development area at one end, and the home/hobby area at the other end of the market.

Our strength and our growth potential are in providing the tools which make applications software marketable and useful.

Toward that end, we've established the leading position in design wins in the 16-bit environment, as we've continued to upgrade and broaden our product offerings for 8-bit machines.
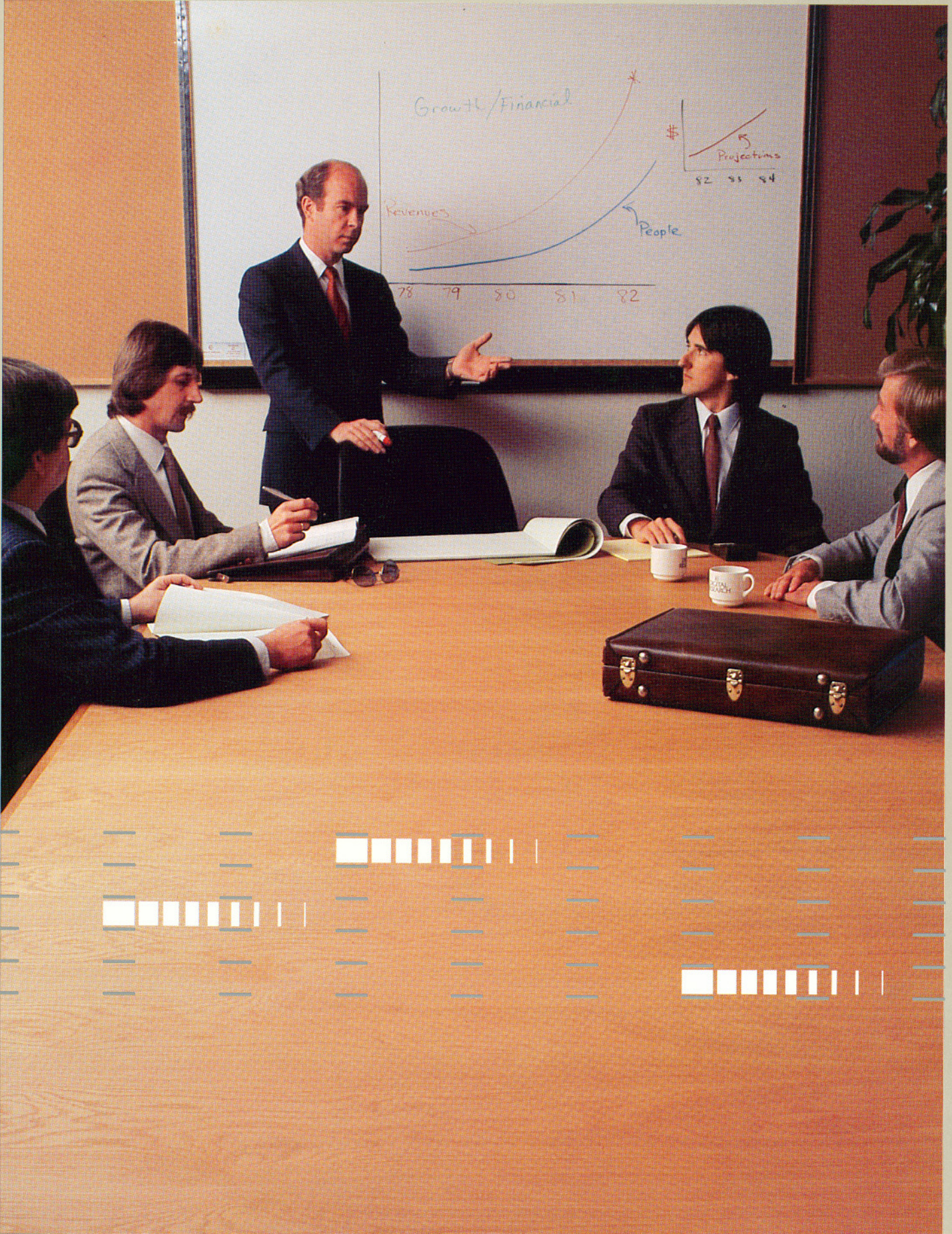
We have built an organization with the professional management and sound structure to complement our scientific strengths. We're building a strong network of distributors throughout the United States, as well as in Europe and the Far East. And we're adding to what is already the most professional sales organization in the industry.

Our challenge is to maintain the agility, creativity and responsiveness which have seen us through this period of explosive growth, as Digital Research assumes a place, with the microcomputer, as a fixture on desktops around the world.

"Through continuing to solidify our leadership position in the domestic market and aggressively expanding into huge Japanese and European markets, we're confident we can maintain growth at our current rate, or better, in the next few years." Stan McKee, Chief Financial Officer.

What's ahead? Standardization. Compatibility. The same wide base of useful software for 16- and 32-bit microcomputers that we have for 8-bit machines.

Improved languages for the commercial market and for the educational market.

Database management. Networking. Program generators. A complete group of portable graphics tools.

And the refined training, documentation and support that are essential to make the products work at every level.

We enjoy the loyalty of a huge base of microcomputer users, microcomputer manufacturers and microsoftware developers. We want to continue to do business with them for a long time to come.