Burroughs
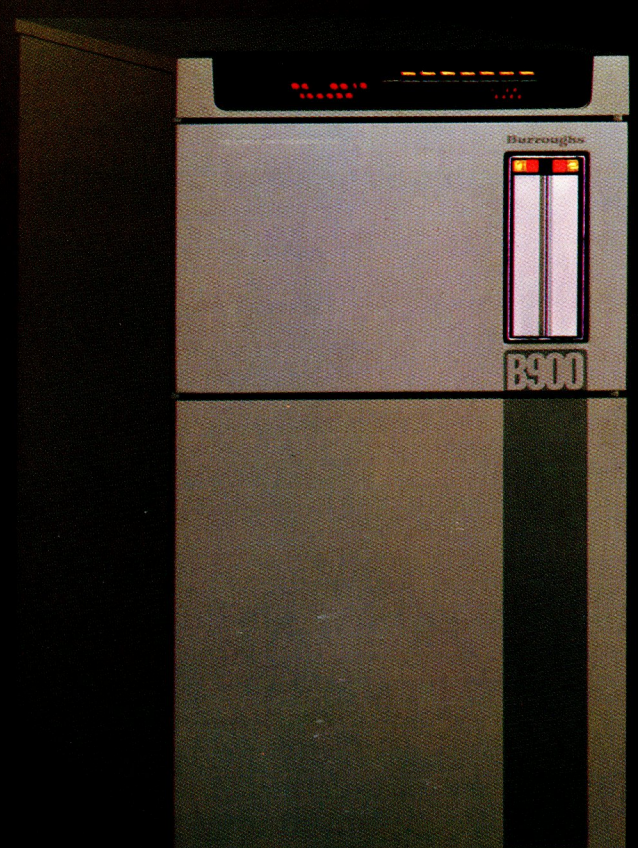# B 920

Burroughs B920 Multiple Processor System... Multiple Benefits

The small systems user now has it: the convenience, the power, the capabilities—the multiple benefits—of a multiple processor computer.

Burroughs B920. A revolutionary small system which is based on large-scale multiprocessor architecture. Throughout Burroughs 20 years experience in this technology, we've proven that the best way to handle many tasks is to put a number of processors into one system. Burroughs has set the pace in this area of computer development with our large systems. Now we're setting it for small computers. Only Burroughs would be able to harness the advantages of multiple processor-based large systems to a small computer.

And the advantages are multiple. For one, the B920 handles your work conveniently. This is possible because, in a single system, the B920 can contain up to *eight powerful processors.* Therefore, resources are always available to allow the B920 to not only run according to your schedule, but respond to your requests and resolve the problems which arise during any given business day. Multiple processors make convenience the keynote of the B920.

Additionally, designated B920 processors are capable of multiprogramming, so that several jobs can be running simultaneously in each processor. This is Burroughs way of delivering higher levels of throughput than ever before expected from a small computer system.

Another advantage is that the B920 is easy to use—and therefore easy to implement. This system is based on sophisticated technology which enables the B920 to virtually run itself. Its internal functions are controlled by one processor: your operator can be easily trained to do a good job of using the computer.

And this computer can be used in every area of your operations. A distinct B920 advantage is the enormous capabilities this system offers. To get some idea of the B920's strengths, look first at what you know about any other small system: how fast it operates, the number of jobs it completes in a given period of time, and how effectively it reaches the vital areas of an operation through the use of one processor.

Imagine what it would be like with *eight* processors.

Quite simply, the B920 approaches the work at hand on a "divide and conquer" basis; it segments tasks and channels certain responsibilities to specific processors. The appropriate resources are then devoted to the completion of each particular segment. For instance, every B920 has an *operating system processor,* which exclusively handles system functions. All decisions concerning the allocation of system resources are made by this processor; it also coordinates the activities of the other processors. This makes the B920 easy to use and ensures top system performance.
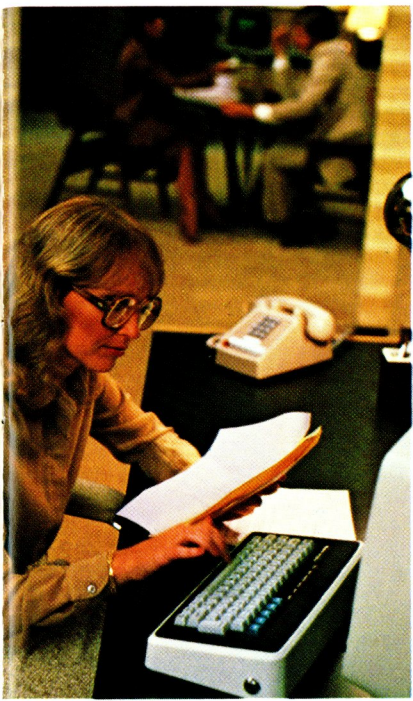
Another function of the computer is *disk file management;* the B920, therefore, has a separate processor which directly interfaces with disk devices for optimal file management. This promotes the best possible execution of user programs.

The *data communications processor* provides a high-speed link to the work stations attached to the system. This means that the B920 has a reach powerful enough to unite all of your departments and facilities in a comprehensive network of information management.

And for the execution of your workload, the B920 has *task processors* which are devoted exclusively to running your programs. These processors are unhampered by related functions —which are handled by the other processors— so that your tasks are completed with a high degree of speed and efficiency.

These processors work separately, yet together, to form a true multiprocessing environment, thereby yielding maximum throughput and new levels of system performance.

Multiple benefits. Only available from this small system: *Burroughs B920.*

Multiple Processors...
Multiple Innovations

The B 920 has features which are essential to the most effective implementation of multiple processor architecture. The B 920 user, therefore, will find that the ongoing utilization and eventual expansion of the system will be enhanced by:

Processor Redundancy, which assures you of having virtually the continuous processing power needed to execute jobs. This capability allows work to continue even if a processor becomes inoperable: the B 920 functions until that processor is restored.

For instance, if either the disk and/or operating system processors stop functioning, the B 920 can be restarted after activating one of the alternate processor switches on the cabinet. This allows the B 920 to run, using a reassigned task processor as the disk or operating system processor. If a task processor falters, its work will be allocated to an alternate task processor, even if that alternate is already being used for other jobs. With processor redundancy, the B 920's resources are redistributed to ensure completion of the workload.

System Modularity, which allows you to start with the number of B 920 processors you need, and then expand the system as your requirements increase. For instance, you can initially have five processors configured with your B 920, allocating one processor for system operation, one for disk file management, two for task processing and one for data communications.
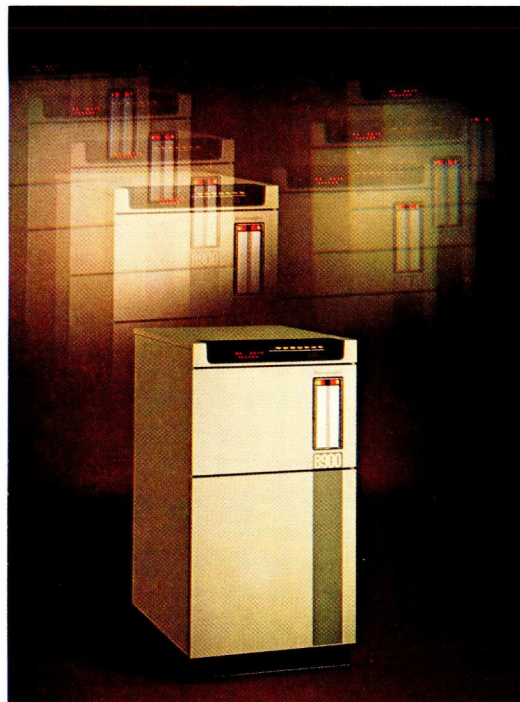
Then, as the workload increases, additional memory can be added to the existing task processors, which will allow more jobs to run simultaneously on the system. However, at some point your increasing workload may become greater than the system's capabilities. With most other currently-available computers, you would have to install an entirely new system to cope with these extra processing requirements.

The B 920 avoids this. The unnecessary disruption is totally eliminated by the capability of adding extra processors and their associated memory to the existing B 920 cabinet. On site.

Computer Management System (CMS)— Burroughs proven operating system software. CMS is the reason behind the B 920's ease of use and ease of growth. Because of the Master Control Program—a component of CMS which is present in the operating system processor— current members of your staff can quickly learn to operate the B 920. The Master Control Program simply assumes much of what is involved in running the system and minimizes the operator's involvement. In addition, the Master Control Program automatically incorporates the new processors, disk storage and peripherals you add to the B 920; these new resources are assimilated and immediately put to use—without reprogramming.

CMS also makes upgrading easy. For instance, the Burroughs user with a similarly-configured B 80, B 90 or B 800 can run the multiple terminal display programs from those systems on the B 920 without change to the application programs. And when the time comes for further growth into larger Burroughs systems, CMS continues to make it simple and economical.

Additionally, if your company has outlets in different locations, you can easily implement a distributed processing network with the B 920. As part of the CMS concept, it can be linked to other Burroughs systems for effective distribution of the B 920's power and capabilities.

Multiple Benefits—Extended

As your operations encompass a variety of activities in a number of locations, you are probably considering a system which can reach the important areas—those both close to and remote from the computer.

Consider the B 920: through the use of multiple work stations you can extend the power of the system to where it counts. Burroughs Modular Terminal (BMT™)* displays and printers can be situated wherever they are needed for concurrent real-time transaction processing. Because every B 920 has a data communications processor which can support up to four communications lines, the system has ample capacity for extremely fast local processing.

The use of data communications significantly enhances your use of the B 920. It allows you to take full advantage of the system's ability to streamline your operations, extends the effects of your software applications, and coordinates the activities of all your departments through the sharing of vital information. There are numerous ways the B 920's data communications capability can affect your business, such as:
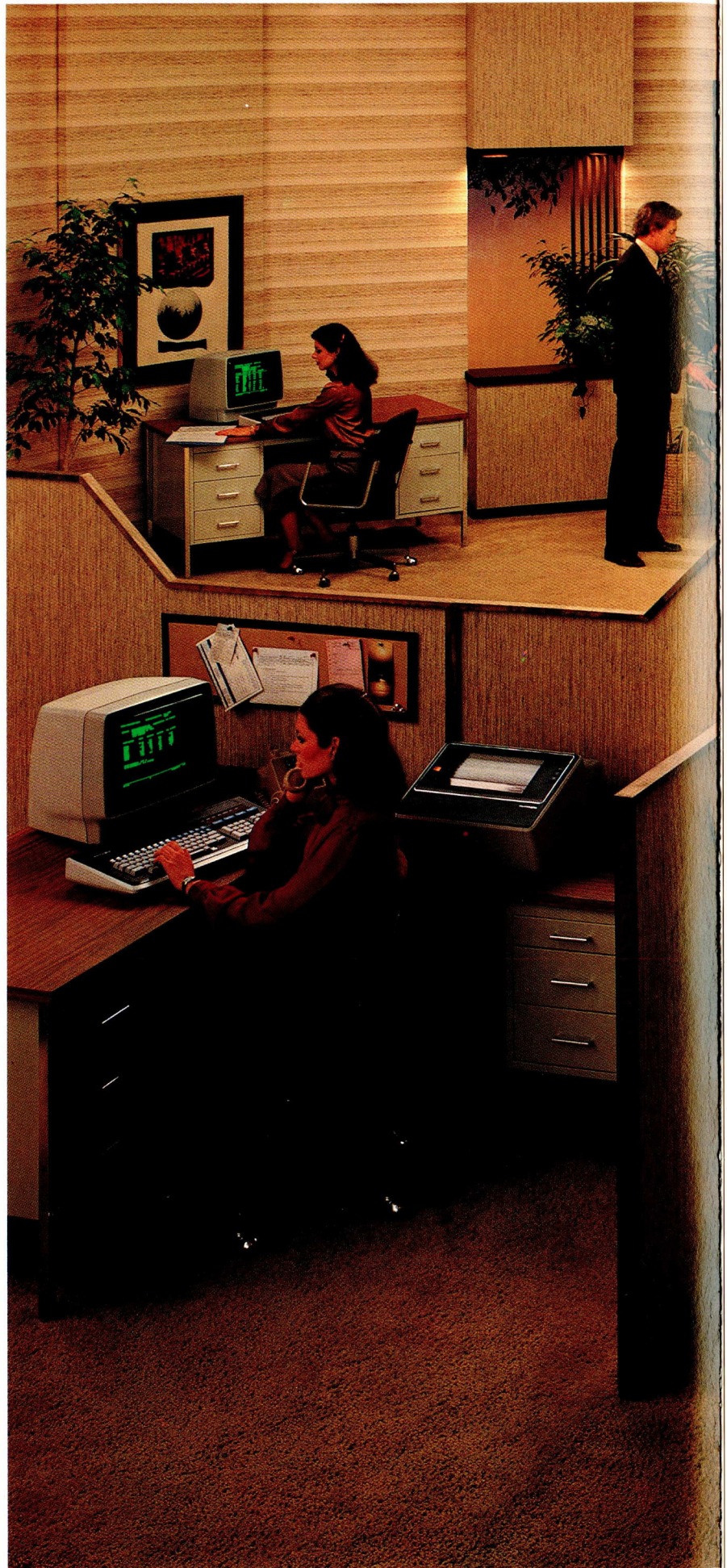

In your administrative offices. The Modular Terminal displays deliver information upon request. Production reports from manufacturing facilities, sales reports from branches, inventory reports from warehouses...all of the facts that are part of your business are within close reach. You are working with management reports which are current and accurate; real-time transaction processing means that all files are updated as soon as the B 920 receives new information.

The use of terminal displays in your administrative offices is also of invaluable assistance during decision-making meetings, as they provide fresh information and background data on demand. In short, data communications helps you do what you do best: run your business.

*Burroughs Modular Terminals is a trademark of Burroughs Corporation.

Near the source: your computer area. The B 920 can be situated wherever you have space in your offices; it's so compact that it requires little of your valuable floor space. This area may be close to your sales office, where it is vital for your employees to have ready access to computer information at their desks. Again, the terminal displays provide the answers. The information the B 920 contains is immediately at hand and ready to be put to use.

Telephone inquiries, for example, can be answered with greater accuracy and speed. By using the terminal display, your employee can quickly tell the customer if sufficient inventory is available to fill the order, when it can be sent, and if credit can be approved. The programs which yield this information are present in the system — the B 920 simply extends their benefits to where they count. Sales orders increase; profits increase; people are happy to deal with a business which provides a good customer service.

Your accounting department is a prime candidate for the services of data communications. To see the positive impact, consider first the accounting functions which the B 920 handles through the use of Burroughs modular program products. These application packages have been proven by thousands of our small systems users; they are ready to run when your B 920 is installed.

Burroughs has commercial application modules for such jobs as invoicing, accounts payable, inventory control, inventory management, accounts receivable, payroll and general ledger. You can use these modules in any number or combination to manage your operations more effectively and efficiently.

And you can distribute this effectiveness to the desks of your accounting employees. When the terminal displays are placed within easy reach, they team-up with the members of your staff to get all of the necessary tasks completed with minimal effort. Your people provide the input and use the information. The B 920 does the work.

In branches, in warehouses, in factories, at distribution facilities...wherever people perform crucial tasks within limited time frames...the B 920's data communications capability makes it happen. One of the multiple benefits of the system is that it is geared to your type of business —largely due to Burroughs Business Management Systems (BMS® program products)* which deliver solutions directly to your operation's problem areas.

There are application solutions for such diverse areas as:
☐ Manufacturers
☐ Utilities
☐ Financial Institutions
☐ Educational Institutions
☐ Health Care
☐ Contractors
☐ Distributors
☐ Wholesalers
☐ Government

Again, the solutions provided by BMS program products can reach out to remote locations—no matter how distant they may be.

For instance, the manager of your distribution facility has immediate access to warehouse information through the use of terminal displays. The people at your distribution center can closely and accurately monitor product movement, availabilities and orders. Your over-the-counter sales personnel can quickly verify inventories, shelf locations and product prices on terminal displays.

The uses are limitless. And the beneficial effect on your business can be remarkable. The benefits of the B 920's advanced hardware and its proven software are distributed throughout your organization by data communications. And the various areas of your operations are able to work together in a comprehensive network of information management.

Multiple Processors...Multiple Options

Your B 920 will be configured with the number of processors and types of peripherals and disk storage devices which fit your requirements. You have a variety of options with the B 920 — all of which are available from a single, convenient source. There are distinct advantages to dealing with Burroughs complete computer company. Most importantly, you have access to the people who know how to fit the product to your business. Burroughs has nearly 30,000 professionals ready to assist you in a multitude of areas. They will be working with the selection of products you see on these pages to give you the B 920 which best meets your business' needs.

Burroughs B920: This compact cabinet can contain from five to eight powerful processors to handle your information management needs. Your particular configuration may include an operator display terminal, which shows instructions, messages and data input in bright, easy to read characters. The systems shown above and to the right are configured with Burroughs Super Mini Disk drives inbuilt.

The fixed disk subsystem shown above gives you high speed, high capacity and high reliability in a disk storage device; up to three may be included with your B 920 for ample disk capacity.
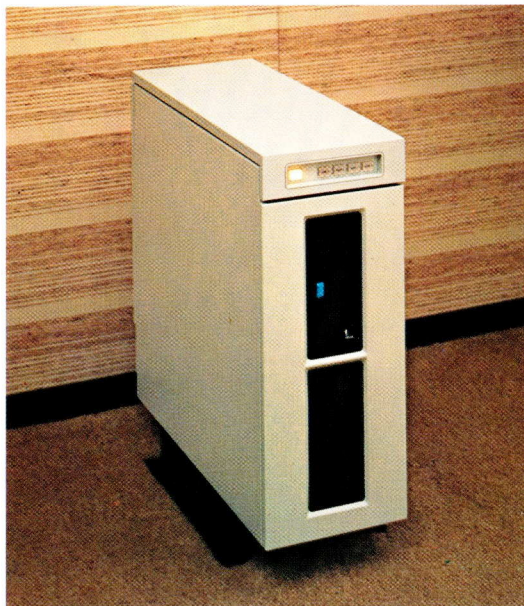
Additional disk storage subsystems which are available include Burroughs disk pack, Burroughs super mini disk, fixed disk, and cartridge disk. Your Burroughs representative will configure the best combination of these subsystems to meet your needs.

Burroughs Modular Terminal Displays (top) provide information where it is needed, whether it be at your main offices or at remote locations. The terminal displays allow data input and inquiries for a complete utilization of the B 920's capabilities. The information transmitted to the terminal displays can be put into hard copy form on the compact printer shown. Shown below is a terminal printer which can be used either in-house or remotely.

A selection of printers is available to satisfy a variety of requirements. Shown are two high-speed Burroughs line printers, which accommodate the demands of your heavy workload.

Additional peripheral options are available such as phase-encoded magnetic tape (left) and the industry-compatible mini disk (above).

Multiple Processors...Multiple Results

Eight processors—working separately, yet together—form a true multiprocessing environment. The result is a system which takes care of your work; takes care of itself; readily becomes productive because it's so simple to use. Very productive because of its remarkable level of processor power...continually productive due to processor redundancy.

And if you are currently using a Burroughs system, CMS makes upgrading to the B920 fast and economical.

And if you aren't a Burroughs user, here is a good reason to become one. Now is the best time to start getting good results from advanced computer technology—and begin benefitting from this innovative step in the evolution of small systems: Burroughs B920.