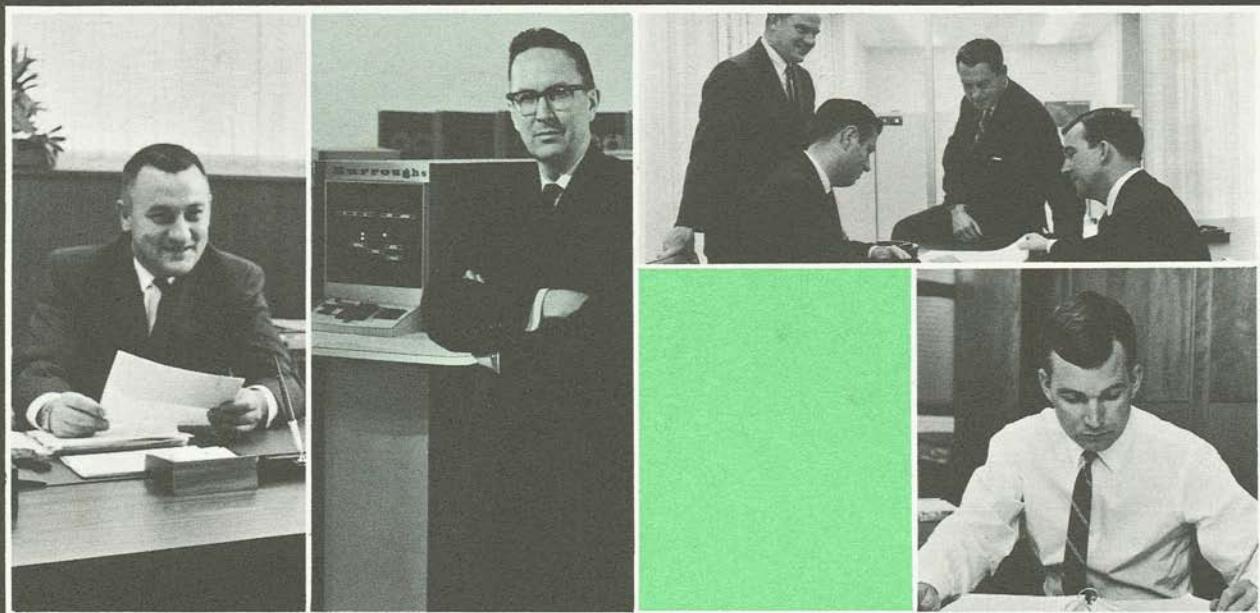


*A new level of
computer
responsiveness*



the new
Burroughs B 2500 and B 3500
Electronic Data Processing Systems



**The
Burroughs**

B 2500 and B 3500

are built a better way

to provide

responsiveness

to the changing requirements

of your business

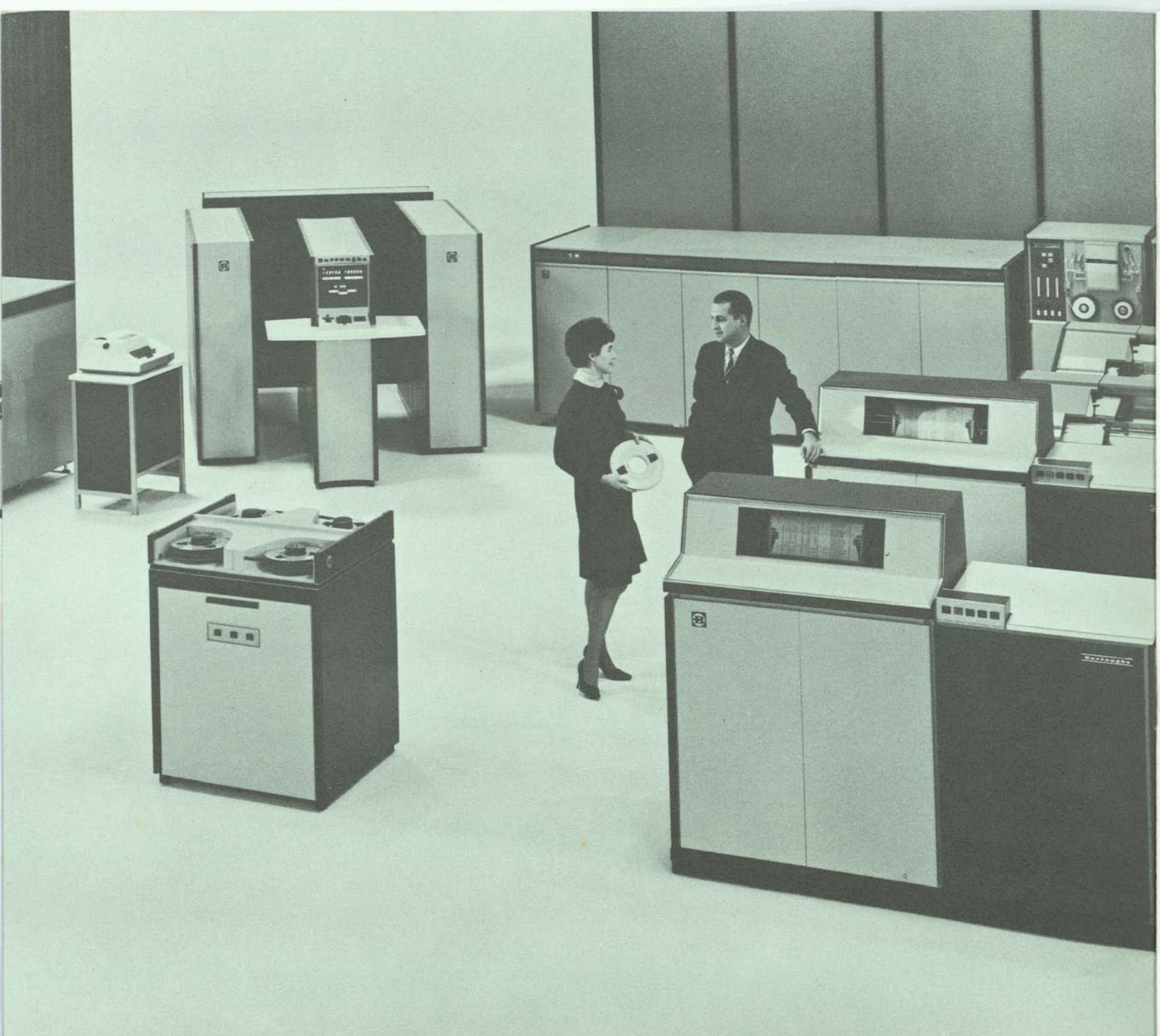
These two new *user-oriented* computers are the latest Burroughs 500 Systems to be built by *teams* of hardware and software experts. In conventional computer system design, software writers must build a bridge of communication between a static, final equipment design and the human user. The teamwork approach results in computers that are more powerful, more flexible, and easier to program and operate.

Burroughs Corporation started this trend in 1960 with the B 5000, which established the value of integrated hardware/software design. That system's more powerful successor, the B 5500, is still unmatched by even

the newest generation competitive systems.

The teamwork approach was further implemented in the Burroughs B 8500, most powerful computer system ever designed.

Now, this new level of computer responsiveness to business and scientific problems is available to even the smallest organization with a requirement for electronic data processing. This brochure describes how the Burroughs B 2500 and B 3500 respond to the needs of the people in a business organization, enabling the organization and its people to be more responsive in turn.



If you are an **Executive**

These new Burroughs computer systems make needed information available to you when you need it — not hours or days later.

Result: the ability to move quickly to meet changing competitive conditions, solve operating problems, adopt new ideas.

In typical situations today, management finds that the computer offers a paradox of information availability. On one hand, it greatly speeds the processing of large volumes of raw data. In applications like inventory and material control substantial savings may result from cutting the paperwork cycle by even one day. Other high-volume data processing applications may provide better customer service or more prompt billing.

On the other hand, the automation of files is apt to make the information they contain less available to management on a demand basis. This is because the

typical computer does one job at a time on a tightly scheduled basis. Thus, the availability of computerized information becomes dependent on the strict cyclical reporting schedules that are necessary to utilize the computer economically.



What is needed to resolve this paradox is the practical multi-processing capability found in the Burroughs B 2500 and B 3500. With these new systems, the executive has direct access to the computer and its files. The new Burroughs systems are able to respond to special requests without interruption of the flow of high-volume work. Extra, unscheduled jobs may literally be added non-stop to the current mix of work.

With the Burroughs B 2500 and B 3500, the computer is no longer an inaccessible black box. It is a responsive, versatile tool of management.



If you are a Data Processing Manager

The Burroughs B 2500 and B 3500 offer you the tools with which to serve your company more effectively than ever before:

- very fast hardware speeds;
- up to 20 self-regulating I/O operations concurrent with processing;
- multiprocessing capabilities that allow handling of a mix of jobs simultaneously;
- a choice of two operating systems that are of direct help in managing the computer's workload;
- a combination of generator, assembler, and higher-level programming languages that speed programming;
- hardware and software features which yield extremely effective time sharing, data communications, and real time capabilities.

These and many other aspects of the new Burroughs computer systems make them exceptionally free of the typical problems of computer management:

- Far less time is required to plan for the computer's most effective utilization, since an operating system is available which allows the computer to monitor and optimize its own operations.
- Long term changes in workload are easily accommodated because the multiprocessing

capabilities of the systems allow new work to be added to configurations which — by "one job at a time" standards — seem fully loaded. Furthermore, if a configuration becomes fully loaded with multiprocessed work and a larger configuration is required, the operating system will automatically adjust user programs to take full advantage of new I/O or memory capacity.

■ Sudden changes in workload or priority are less troublesome because of the dynamic nature of the new system's multiprocessing operation. Jobs may be added to the current in-process mix, or priorities of jobs in the mix may be changed, at any time.

■ The use of higher level languages, the decimal orientation of the systems, and the simplicity of use resulting from self-regulation mean you can get jobs programmed and on the air quickly. Automatic library maintenance eliminates the problem of keeping track of, and retrieving, programs and data. Automatic logging routines keep track of I/O and processor time used by each program.

The simplicity with which the B 2500 and B 3500 may be managed allows you to concentrate on managing people and on responding effectively and quickly to your company's constantly changing pattern of information needs.





Systems

If you are a

Analyst



The flexibility of the Burroughs B 2500 and B 3500 will contribute

to the effectiveness of your work. As you synthesize new information systems to solve problems in an optimum manner, you'll find a remarkable degree of freedom—from the hardware constraints that often require compromise between the best way to do a job and the realities of the computer system environment with which you work.

You'll find new applications less costly to add to the computer's schedule, in most cases without adding to the size of the configuration. These new applications are programmed and debugged faster, too, in languages that provide crisp, standard documentation that is easy to understand.

As a result, you have a degree of control over the entire project, and over progress of individual programming

tasks, that speeds the implementation of new plans. And the programing effort for a major application can be broken out for work by many people, with the results integrated under operating system control.

The ability of the new Burroughs computers to multi-process, and to handle a mix of batch, random access, and real time work, allows you to design the best processing method for the task at hand. If all current applications are batch processed, for example, a random access or data communications application may be added to the system's workload without demanding a reorganization of other jobs.

The result is an opportunity to employ advanced ideas in the design of applications and information systems.



If you are a Computer Programmer

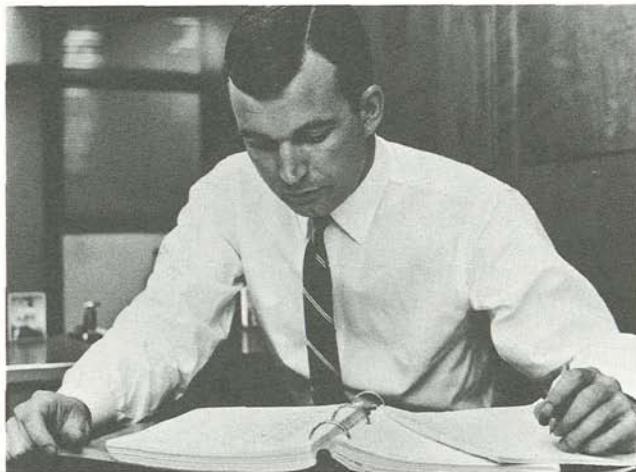
Both the design of the hardware and the nature of the software of the Burroughs B 2500 and B 3500 allow you to spend more time concentrating on the problems you are solving, with less time devoted to machine considerations.

These two new Burroughs computer systems are simple to understand and work with because they are decimal machines. Yet they have operating speeds faster than comparably priced binary address computers. The command set is simple but powerful. With one instruction you can MOVE from one digit to 20,000 bytes — or ENTER or EXIT from subroutines, including all detail housekeeping and permitting stack operations and recursive entry.

Two Report Program Generators allow quick programming of simple routines. Two Assembly Language programming systems are offered with a powerful list of macro instructions. And both COBOL and FORTRAN are available, offering proven value in speeding the preparation of programs. They provide standardized documentation that makes program maintenance and change much easier. And with the B 2500 and B 3500, they yield object programs equal to above average machine language coding.

Program generators are also provided for your use in solving sort/merge and media conversion problems. With them, you can quickly and simply generate as many or as few utility programs as you require, each tailored to the specific job.

The operating systems are especially important to the programmer. The Master Control Program, for example,



performs all of the following functions (and more) automatically:

- program and data library maintenance
- memory and I/O allocation
- program scheduling and multiprocessing control
- program loading
- I/O initiation
- blocking and unblocking of either fixed or variable length records
- error handling and recovery
- overlay of program segments
- rescheduling and adjustment of program mix and memory allocation to allow non-stop multiprocessing despite changes in priority or job mix
- adjustment of programs to make optimum use of many changes in hardware configuration
- log preparation, including distribution of I/O and processor time to multiprocessed jobs
- diagnostics and testing
- communication of instructions to operator

The generators, assemblers, higher-level languages, operating systems, and powerful responsiveness of the hardware to your instructions, all combine to make you more responsive to the challenges of your work.

Burroughs **B 2500 and B 3500**

- Both share the common design principle of a full partnership between software experts and hardware engineers.
- Both are built for maximum efficiency with higher-level programming languages.
- Both are capable of dynamically scheduled multiprocessing under full control of a comprehensive operating system.
- Both yield an unmatched measure of responsiveness to the changing needs of the computer-using organization.
- Both benefit from and contribute to Burroughs Corporation's acknowledged excellence in electronic data processing.

