

**Burroughs
B20**

**DISTRIBUTED
INTELLIGENCE
SYSTEMS**



Introducing Burroughs B20

What's really new and exciting in today's crowded, often confusing world of small computers?

Burroughs B20 . . . the new family of multifunction workstation systems for distributed processing.

These are systems that let you start small and build big . . . to progress from stand-alone operations to large cluster-station networks . . . simply by adding applications and capabilities.

The B20 is more than just another friendly face.

It has the power of a minicomputer:

Self-contained logic — micro-driven processors, keyboards, screens, communications.

Large local memory — up to 640K bytes per system.

Mass storage — up to 60M bytes per system.

Communications — for local networking, plus communications with remote host computers, host networks, public switching networks.

Data management — multiple access methods, including multi-user multi-key ISAM; multi-file multi-level SORT/MERGE.

On-board operating systems — for multi-tasking, local processing, on-line functions.

Easy programming — with standard high-level languages.

Multibus design — provides a link to high-speed communications and access to other devices.

Shared resources — for easy growth and low cost.

It looks like a terminal:

Compact — fits on a desktop, on a counter, in almost any convenient location.

Programmable keyboards — to match specific applications.

Programmable screens — for multiple window applications, programmable display forms.

Multifunction — for interactive processing, remote batch, RJE, data entry and collection, just about every job you want a terminal to do.

It functions as a workstation:

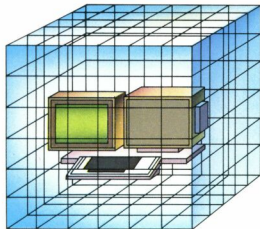
Stand-alone, cluster, or both — configure it to your needs.

Modularity — lets you match capabilities to functions at each workstation.

Integrated data/word processing — without compromising either function.

Very friendly — simple, easy-to-understand operator communications.

Ergonomics — tilt and swivel, anti-glare screen; separate movable keyboard with a palm rest; open-book design for maximum operator comfort.



Distributed Intelligence Systems

Burroughs B20 marks one of the most important advances in Distributed Processing in years.

Distributed Processing brings information-handling power into divisions, departments, branch operations or wherever the data flow originates.

On-site processing and information management can make local operations more efficient and contribute to central information system efficiency, as well.

Burroughs B20 systems elevate Distributed Processing to a new level of functionality and cost-effectiveness.

How? Through distributed intelligence.

B20s let you distribute electronic intelligence to separate desks and workplaces . . . individually tailored productive power.

There are so many B20 options that you can specify information-handling power to match each application, from data entry and basic clerical functions to complete local processing and communications.

The revolution in microelectronics makes B20 distributed intelligence affordable wherever you people work with data.

What about the future?

Today's best buy wouldn't be a bargain if it couldn't help you respond to changing business conditions, to changes in organization and objective, to growth.

It must have the ability to accommodate change easily, economically, without disruption or delay.

That's why Burroughs B20 systems are engineered as modular, electronic building blocks. As your needs change, you can help meet requirements by adding B20 workstations to your existing configuration, accommodating new functions or

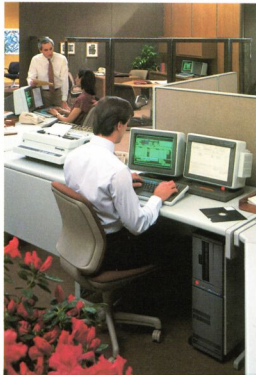
expanding current functions with "plug it in and go" simplicity.

You don't have to wait

Burroughs makes it all available to you in the remarkable B20 family.

And with it comes Burroughs experience — now approaching the century mark — in applying technology to the information-handling needs of people in organizations like yours.

Now take a closer look at the elements of the B20 systems to see how they can fit your own needs today.



We've Made It Easy For You

Burroughs B20 family includes two series of systems — the B21 Series and the more powerful B22 Series.

Each series includes a number of models. So you have a wide choice of progressively higher capacities and capabilities. Models from both series can work together in local networks.

No more need to overbuy . . . now or ever.

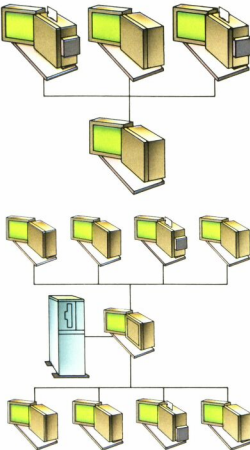
Both series utilize similar, in some cases identical, "building block" components:

Desktop stations — each with its own processor, memory, keyboard and display.

Mass storage — both diskette and Winchester-type fixed disk.

Mass storage expansion — in the B22 Series, you can get up to 60MB.

Printers — from letter quality to fast line printing.



With Wide-Ranging Equipment Choices

STATIONS

Each station incorporates its own powerful 16-bit processor.

RAM memory ranges from 128K bytes to 512K bytes in B21 Series models, up to 640K bytes in B22 Series models.

A clear, steady glare-free 15-inch (diagonal) display with a tilt/swivel base is standard. B21 display capacity is 80 characters by 28 lines. The B22 offers 132 characters by 34 lines as a software-selectable option.

Among the display's many convenience features are 256-character programmable fonts (B22 only), reverse video, various forms of highlighting, vertical and horizontal scrolling, and the ability to display multiple frames (portions of different texts and records) simultaneously.

The B20's keyboard features a 14-key numeric pad, individual pads for status and control functions, for cursor control and for page control, plus a 10-key pad for user-definable functions, in addition to the alpha section.

For your convenience, the keyboard is connected to the display by a five-foot coiled cable. Ergonomic considerations include contoured keytops and palm rests.

MASS STORAGE

Depending on model, B21 Series systems offer from 500K bytes to 1M bytes of mini-diskette storage, and from 6.2M to 10M bytes of mini-Winchester-type fixed disk. Maximum combined capacity is 11M bytes per B21 system.

B22 Series systems provide up to 500K bytes of diskette storage and up to 60M bytes of Winchester-type storage.

In most B21 models, a controller for all disks plus the initial diskette or mini-Winchester drive are housed in a compact

desktop cabinet which also contains the processor and memory.

Placed beside the display, the processor and memory cabinet serves as a lectern and has clips for supporting documents with which the operator is working.

MASS STORAGE EXPANSION

Fixed-disk capacities of B22 Series systems can be expanded with either one or two additional drives of 20M bytes in a single expansion unit. You can specify up to 60M bytes of fixed-disk capacity for an individual B22 system.

PRINTERS

Pick an appropriate printer for each function. Burroughs offers you a 35-cps letter quality printer, a choice of higher speed table top matrix printers, or a line printer rated at 300 lpm.

Additional printers can be attached via vacant data communications lines. You can attach as many as two printers to a stand-alone (non-communicating) B20 system.

COMMUNICATIONS

Communications with mass storage, with printers, with other B20 stations, and with external data communications links are provided for through combinations of standard and broadband channels, and parallel printer ports.

Note that Burroughs even provides a cost-saving entry level system, the B21-1, for basic functions, such as data entry, which don't require mass storage or printing.

You can see, then, that Burroughs offers you so many choices in functionality and performance that the productive power of these new B20 distributed intelligence systems can be tailored to benefit just about every area of your operations.

Easy To Start With

From a stand-alone processor to a complete local network of tailored processing stations, the B20's concept of distributed intelligence lets you add the functional building blocks you need, as you need them, to accommodate your long-range expansion plans and to respond to changing requirements.

Start with a B20 model that includes Winchester storage, and you can use Burroughs powerful B20 Operating System (BTOS) which equips your B20 for communications, terminal emulation, program and system development and many additional functions.

When it's time to expand, your stand-alone B20 may become your master station, running a local network of subordinate cluster stations.

The master station's function is to supervise I/O, communications, terminal emulation, and to provide data management and service facilities to cluster stations.

Depending on its workload and resources, the master station can also be running application programs.

An important plus — under BTOS, the master station also provides resource sharing such as shared printer operation with spooling, access by all stations to the master's mass storage files, and external communications.



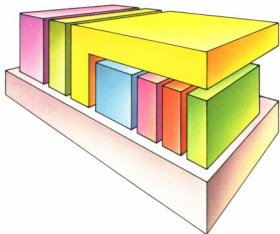
Another plus — in a cluster station network, all stations can run each other's application programs, subject to necessary complements of memory and storage — providing full file sharing and protection.

With a B20 master station, you can create a network of multiple-cluster stations.

Your Burroughs representative can supply you with the details.

The point is that Burroughs now offers you one of the industry's most powerful, versatile, directly expandable and cost-effective Distributed Processing concepts.

When you start with a Burroughs B20 system, your opportunities for the future are virtually unlimited.



Easy To Grow With



Friendly Software For Small System Simplicity

B20 system software is ready now.

It's been tested and proven. It's modular, so it fits the job. It's been designed to make B20 operation easy for beginners. And the power inherent in B20 software will appeal to system engineers and other professionals as well.

BURROUGHS B20 OPERATING SYSTEM (BTOS)

Your professional staff will appreciate the big-system power of BTOS and the sophistication of its layered structure.

BTOS provides for:

On-line, interactive, multi-tasking operations.

Event-driven priority scheduling.

Communication between and synchronization of the processor's internal operations.

Comprehensive file management to optimize mass storage performance.

Multiple levels of file security.

Complete software compatibility so that file structures and operating system interfaces can be transported between stations and across models.

Local language input and output messages so the operator can use the system in the local language.

HIGH-LEVEL PROGRAMMING

BTOS lets you work with COBOL, FORTRAN, BASIC and Pascal. Compilers and

interpreters meet the latest U.S. and international standards, and include many time-saving extensions.

With the B20, you use the language that's best for the job.

DATA COMMUNICATIONS

BTOS provides a comprehensive set of terminal emulators and data comm protocols:

3270 Terminal Emulator. It enables any B20 station to emulate IBM 3270 series devices utilizing the Binary Synchronous (BSC) protocol.

The display provides separate frames for status messages and for host-supplied text.

As a 3270 Virtual Terminal Emulator, this important tool programmatically reformats host-supplied data to fit the local user's needs.

X.25 Communications Manager. This protocol enables the B20 station to operate on a public packet-switching network.

It provides three levels of access to the network:

The packet level enables the user to send and receive complete packets of data, to directly monitor the setup of virtual circuits, and to create automatic assembly/disassembly facilities and other convenience procedures.

The Bytestream level provides device-independent I/O.

The terminal emulation level makes the B20 station appear as a terminal to a computer on the X.25 network, lets it communicate with X.25 timesharing services, and permits files to be transferred from the B20 station to another computer.

Powerful Software For Big System Versatility

Asynchronous Terminal Emulator (ATE). With this emulator, any B20 station can emulate an asynchronous character-oriented ASCII terminal, such as a display Teletypewriter.

2780/3780 Terminal Emulator. Used to simulate remote job entry (RJE) devices, this emulator functions as a background service, queuing files on disk, if necessary, for later transmission and permitting the B20 to give priority to foreground tasks.

Burroughs Poll/Select Software. Enables the B20 to communicate with Burroughs computers using powerful and efficient Poll/Select line discipline.

DATA MANAGEMENT FACILITIES

BTOS lets you use the power of the multi-user Indexed Sequential Access Method (ISAM) with its multiple-key convenience and efficiency in random accessing. You may also use the Sequential, Direct, and Record Sequential Access Methods.

OTHER INFORMATION MANAGEMENT TOOLS

A Sort/Merge Facility for 15-level sorting with multi-file merge. It's very flexible and will accept your own code for tailored use.

A sophisticated Forms Facility that lets you design and test complex display forms interactively.

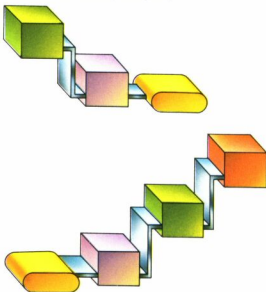


A comprehensive set of Development Tools especially designed to employ the power of the B20 system itself to assist in developing, testing, debugging and editing programs.

A powerful Word Processing capability with a long list of time-saving, error-saving features and operator assists . . . plus the ability to integrate word processing files with data processing files.

Multiplan™ — A powerful, flexible electronic spreadsheet program available for generation and analysis of management information.

A powerful and generalized File Maintenance, Inquiry and Reporting Facility allows creation and maintenance of management information without the use of a programming language.



With its ability to access public networks, private host networks, and many kinds of host computers in addition to Burroughs systems, the B20 should be the system you consider first in modernizing your remote or distributed processing operations.

If you're just starting out, now you have the opportunity to start out right!

Multiplan is a trademark of Microsoft, Inc.

We've Brought It All Together For You

- Powerful operating system
- Data and word processing
- Multiple high-level programming languages
- User-friendly interfaces
- Large main memory, mass storage

- High-speed local networking
- Standard data communications protocols
- Burroughs service and support
- Local language interfaces for international operator communications

In The Future System That's Here Now

- State-of-the-art electronics
- Tomorrow's concept — distributed intelligence
- Configurable, building-block architecture
- Ergonomic design for comfort and efficiency

- A design that beautifully complements function
- Selective entry to Distributed Processing
- Easy expansion — multiple options
- Simple installation — reliable performance
- Immediate productivity



Why Burroughs?

■ Leadership experience in data communications, networking, distributed processing

■ Complete system solution capabilities

■ Worldwide support structure

■ Wide-ranging applications knowledge

■ Close to a century of growth and experience with small and large systems users.

In terms of revenue from information systems and related products, Burroughs is the second largest company in the information-processing industry . . . and we're growing quickly.

Worldwide, organizations that are leaders in their own fields look to Burroughs as a primary supplier of computers, office automation systems, program products, communications equipment, business forms, data processing supplies, office supplies . . . everything that means excellence in information management.

Burroughs
Building on strength.