THE PRODUCTS OF BURROUGHS

Burroughs business is the recording, storing, computing, processing and communicating of data. Its products include electronic data processing systems; data communications terminal devices; special systems for defense, space and other government agencies; electronic accounting systems and electro-mechanical accounting machines; adding machines and calculators; data recording equipment; electronic components, and a comprehensive line of business forms and office supplies. This brochure contains a representative sampling of the range of products and services which Burroughs engineers, manufactures and markets worldwide.

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electronic data processing systems

Burroughs is recognized in the EDP industry as a supplier of computer systems of very advanced design. The unique architecture of Burroughs "500" Systems computer family incorporates modular design to permit system growth without reprogramming, and "dynamic self-regulation" through operating system software that automatically schedules and allocates the system's resources to programs being processed.

Multiprogramming is the normal mode of operation and, on the larger systems, parallel processing with multiple central processors provides maximum throughput and reliability. The data communications-oriented design of Burroughs computers permits full utilization of terminal devices in on-line remote data processing and time sharing networks. An outstanding library of applicational program packages is available to "500" Systems computer users. The B 500 computer system (1) is the smallest of the "500" Systems family. It has higher-level language compatibility with other "500" Systems computers, providing a natural bridge for Burroughs users into the larger systems. The B 500 brings t versatility of high speed random access processing and full COB programming within reach of many more system users.

The medium-scale B 2500 and B 3500 computers, like other Burroughs systems, are characterized by automatically controlled multiprogramming capabilities and outstanding productivity. The B 2500 (2), shown in a typical financial configuration, is being utilized, both in the United States and Overseas, in varied applications in banking, industry, commerce and government.

Burroughs larger B 3500 system (3) is also used in a variety of applications and offers even greater power and productivity. The



United States Air Force is one of many current B 3500 users and is installing these systems to automate an extensive network of air bases situated both in the United States and Overseas.

Burroughs B 4500 (4), the newest computer series in the "500" items family, is oriented principally to general business and industrial data processing and uses COBOL as its primary business language. It also is designed for environments where on-line, real time, multiprogramming and data communications operations are normal methods of day to day processing. The B 4500 is completely compatible with the B 3500 and features field experienced software. Programs written for the B 3500 will operate on the B 4500 without reprogramming or recompiling.

In designing the medium-to-large scale B 5500 (5), Burroughs software experts worked with hardware engineers to develop one of the first commercial computers designed to operate under the control of self-regulating operating system software. The B 5500 is widely used in on-line time sharing networks.

Designed to meet the increasingly complex data processing needs of the 1970's, Burroughs very large-scale B 6500 computer system (6) represents a combination of advanced hardware and operating system software developments. The B 6500, an extremely powerful general purpose computer, is one of the largest systems designed for both business and scientific use currently in delivery status. In addition to performing a variety of on-site batch data processing operations, the B 6500 can simultaneously handle remote batch processing and perform "conversational" processing of data entered from remote terminals.



high speed computer peripherals

Burroughs offers "500" Systems users a wide range of high speed input and output devices, random access memory files and satellite data storage and retrieval systems.

Burroughs Computer-Output-To-Microfilm system (7) produces microfilm images from data recorded on magnetic tape at speeds up to 96,000 characters per second.

Magnetic Disk Files (8) range from Systems Memory files with capacities of from one to four million characters to massive Data Memory Banks with capacities ranging to billions of characters of information. The unique head-per-track design of the Burroughs disk file eliminates mechanical moving-arm mechanisms for improved speed, performance and reliability. Customers can select from a full spectrum of memory sizes and access speeds. Burroughs new Disk File Optimizer, available for large-scale systems, can increase from 10 to 20 times the speed at which information can be stored or retrieved.

Burroughs high speed electronic reader sorter (9) for banking and business reads both optical and magnetic characters simultaneously and sorts documents at a speed of 1,625 per minute. T unit is expandable from four to 32 pockets.

Punched card readers (10) range in speed to 1,400 cards per minute and card punches (11) to 300 cards per minute. Burroughs offers a range of magnetic tape devices including the unique magnetic tape cluster (12) containing the equivalent of four conventional tape drives in one cabinet. High speed printers (13), operating at speeds to 1,100 lines per minute, and high speed paper tape readers and punches are also available on Burroughs "500" Systems configurations.



data recording and encoding equipment

Burroughs Series N magnetic tape encoder (14) permits information to be recorded directly on 7 and 9-channel computer-compatible magnetic tape at a density of 200, 556, or 800 bits per inch. A movable 48-character (optional 64-character) keyboard enables

operator to perform entry, verification and search functions with ease. Visual displays aid operator efficiency. Burroughs A 149 peripheral card punch, A 150 keypunch (15), A 160 verifier and A 130 card sorter provide customers faster and more advanced punched card equipment.

The S 100 (16), one of Burroughs Series S family of general purpose character encoding machines, is designed to encode unit

documents with magnetic ink characters or optical characters and has applications in banking, commerce, industry and government.

The T 400 imprinter-encoder (17) and T 600 MICR/line encoder (18) are two members of the Burroughs MICRIGHT family of systems designed to provide automated banks with the ability to prepare internal and external bank documents for computer input. With the T 400, banks can provide fully-personalized, sequentially numbered pocket and business check packages. Both systems offer a full range of MICR-encoding applications.

The T 100 exception item encoder (19) adds MICR data to any computer input document not previously fully encoded.



data communications terminals and systems

Burroughs manufactures a wide range of terminals for use in online data communications-oriented systems. These terminals can extend the applicational power of computers to thousands of remote locations.

The TC 500 terminal computer (20) is designed to operate either as a data communications terminal "on-line" to a larger central computer system or function "off-line" as a free-standing independent computer system. The TC 500, one of a number of terminal computers in the series, can edit and format information and perform operations which previously had to be handled by the central computer, thus lowering costs through reduced data transmission and processing time.

The memory unit in Burroughs Series TC and Series L compact billing and accounting computers, described on Page 6, is an advanced proven-in-use magnetic disk—similar in design to the head-per-track disk memory concepts used in large-scale Burroughs computer systems. The compact disk unit stores 1,024 words of data and has an average access time of five milliseconds. Burroughs new Series RT remote teller currency dispensing machines (21) are designed to dispense packets of currency in bank offices and public locations. Series RT terminals operate offline or as on-line currency dispensers.

Burroughs DC 1000 Series of electronic data communication systems (22) is ideally suited for users having multiple locations such as branches, plants and warehouses. DC 1000 systems collect and concentrate information at remote sites and transmit it to a central computer over high speed communication lines.

Burroughs B 9353 data input and display system (23) combines the display capabilities of the cathode ray tube with a typewriter keyboard to provide a versatile remote terminal device. (The B 9352 data input and display terminal is shown in use with the largescale B 6500 system on Page 2.) Such units permit instantaneous "conversation" between a central computer and the user.

Series TA data sets (not pictured) enable users to attach Burroughs or other manufacturers' terminal equipment to telephone lines for remote processing.



accounting machines and systems

Burroughs is a major manufacturer of electronic accounting systems and electro-mechanical accounting machines, offering customers a complete range of applications where the user desires "hard-copy" records of his operation.

Resulting from the same engineering and development program as the Series TC terminal computer, Burroughs revolutionary Series L billing and accounting computers form the basis of a totally new line of compact computers. The L 2000 billing computer (24) can function as a powerful and productive billing system or, with the addition of a data communications unit, as a terminal computer.

The L 4000 (25) and L 3000 (not pictured) compact accounting computers, like all computers in Burroughs Series L and Series TC family, use micrologic, an advanced software concept that performs the basic logic and arithmetic functions that are usually performed by hardware on other data processing equipment. The L 4000 and L 3000 are directed specifically to accounting applications and the generation of management reports, but can also operate as billing computers or terminal computers.

Burroughs offers more than 130 models of the Series E family of electronic accounting systems, ranging from the E 1000 to the E 8000. Series E systems combine such features as electronic logic and data storage with the flexibility of accounting machine keyboard input and control.

The É 8000 (26) functions either as an operator-controlled accounting system or under internally programmed control as a small computer system. It utilizes a broad range of peripheral input and output devices including dual punched card readers to provide exceptional data processing flexibility.

Burroughs Series F electro-mechanical accounting machines provide an efficient means of handling the modest batches of data generated in hundreds of small and medium-sized business applications. The F 9000 alphanumeric accounting machine (27) has an electronic keyboard and a new, advanced alpha printing mechanism.



small application machines

Compact computing power through integrated circuitry is offered by Burroughs Series C 3000 electronic display calculators and Series C 4000 electronic printing calculators which provide exceptionally fast answers to algebraic and arithmetic problems. Designed for home and office use, the C 3155 mini-calculator (28, bottom) weighs less than four pounds, utilizes high density integrated circuitry, and provides eight-digit display capacity and four function arithmetic. The C 3316 (28, top) features automatic square root and automatic accumulation of products, quotients and factors.

The C 4300 triplex printing calculator (29) has a 16-digit capacity, two independent memories for storage, and a four function computing unit. It also offers the advantage of a printed paper tape as a permanent record.

The J 800 automatic ten-key printing calculator (30) is an excep-

tionally fast, efficient multiplying machine. One of a number of Series J models, the J 800 features simplicity of operation and highperformance in one compact unit.

The P 5000 duplex adding and subtracting machine (31) is available with wide tabulating carriage (as shown) or optional aut matic shuttle carriage providing broad flexibility to meet the needs of modern business.

The P 2000 full keyboard adding machine (32) guarantees correct indexing, before adding, with visible audit keyboard design. Ciphers print automatically, reducing the number of key depressions required.

Burroughs P 7715 teller and cash control machines (not pictured) can be utilized for cash control and receipt printing at teller and cashier windows in many financial and commercial applications.



protection, safety and control systems

Burroughs T 880 check disburser (33) is a multiple-function machine which protects, signs, dates and controls disbursements in a single operation, shredding the authorized amount indelibly into the fibers of the paper to make unauthorized alteration virtually impossible. Burroughs offers several other models in the T 800 Series including the T 860 check signer (34) which imprints an authorized forgery-proof signature, and the T 890 amount protector (not pictured).

The T 142 controlled signature machine (35) combines seven essential check disbursement functions in one compact unit. The system lists, adds and protects amounts, and signs, dates, counts and controls checks in a single operation.



forms and supplies

Burroughs sets the same high standards for the production of forms and supplies that it maintains for its electronic data processing systems and other business equipment. Advanced production techniques are combined with the finest materials and rigid quality ntrols to produce superior solvent coated transfer papers, machine ribbons and roll papers (36).

High-speed presses produce a wide range of attractive safety paper checks(37), and multiple-part and continuous forms(38) for computers and accounting equipment in all types of business and banking applications.

Magnetic striped ledger forms (39) permit information to be stored magnetically and read automatically by Burroughs electronic accounting systems. Manual accounting and bookkeeping systems (40) for accounts receivable, payroll, accounts payable, and general accounting are among the many other business forms products provided by Burroughs.



special systems

Burroughs engineers and manufactures special data processing systems and advanced products for government agencies as well as large-scale computer systems for special commercial, educational and scientific applications.

Custom designed for use in the Federal Aviation Agency's air traffic control system, Burroughs radar digitizers (41) convert aircraft radar signals into computer messages for transmission to air traffic control centers.

One of Burroughs advanced engineering programs is the Illiac IV project, involving the development of an experimental parallel processing computer capable of speeds some 20 times faster than any other system. In the first phase of the program, 64 high speed arithmetic units, one of which is pictured (42), are linked in parallel

to achieve the processing of 200 million instructions a second.

Burroughs rugged D 84 computer (43) is designed to withstand severe environments and is used in applications requiring extreme compactness and reliability.

Display consoles (44), D 825 computers and radar data precessors are supplied to the U.S. Air Force for its Back Up Interceptor Control system for North American Continental Air Defense.

Burroughs information processing systems provide unparalleled reliability and performance in automatically routing messages to and from command centers. This D 825 system (45) handles all digital communications for the North American Air Defense Command's underground Combat Operations Center.





electronic components

Le industry's most widely used readout devices for the display of up to eight characters of numeric or alphanumeric information are Burroughs Nixie[®] tubes. A new development for use in displaying larger amounts of information is Burroughs Self-Scan Panel Display[™] (46). Burroughs also manufactures microelectronic integrated circuits (47), shown at some 50 times actual size, for special applications in its own data processing systems, for sale to other manufacturers, and for use in signal amplifiers and decoders to operate Nixie readout tubes.



THE PRODUCTS OF BURROUGHS

Burroughs maintains a worldwide field marketing force of some 20,000 skilled sales, service and technical support personnel.

The Company utilizes its advanced electronic data processing equipment, software, and application knowledge in time sharing and data processing service centers in a number of locations throughout the world.

This brochure contains only a sampling of the broad range of data processing products and services provided by Burroughs Corporation, its subsidiary companies and distributors operating throughout the world.

principal worldwide locations of Burroughs plants, marketing offices and distributors

MARKETING: ALGERIA ALGIERS ANGOLA LUANDA ARGENTINA BAHIA BLANCA BUENOS AIRES CORDOBA LA PLATA MENDOZA ROSARIO AUSTRALIA ADELAIDE BRISBANE CANBERRA DANDENONG GEELONG HOBART LAUNCESTON LISMORE MELBOURNE NEWCASTLE PERTH ROCKHAMPTON SYDNEY TOWNSVILLE WOLLONGONG AUSTRIA VIENNA BAHAMA ISLANDS FREEPORT NASSAU BARBADOS BRIDGETOWN BELGUM ANTWERP BRUSSELS CHARLEROI COURTRAI GHENT LIEGE BERMUDA HAMILTON NASSAU BARBADOS BRIDGETOWN BELGIUM ANTWERP BRUSSELS CHARLEROI COURTRAI GHENT LIEGE BERMUDA HAMILTON BOLIVIA LA PAZ BRAZIL BAURU BELO HORIZONTE BRASILIA CAMPINAS FORTALEZA PORTO ALEGRE RECIFE RIO DE JANEIRO SALVADOR SANTO ANDRE SAO PAULO CAMEROON DOUALA CANADA BRANTFORD CALGARY CHATHAM EDMONTON FREDERIC-TON HALIFAX HAMILTON KITCHENER LETHBRIDGE LONDON MONCTON MONTREAL MOUNT ROYAL OTTAWA QUEBEC CITY REGINA SAINT CATHARINES SAINT JOHN SAINT JOHN'S SARNIA SASKATOON SHERBROOKE SUDBURY THUNDER BAY TORONTO VANCOUVER VICTORIA WINDSOR WINNIPEG CENTRAL AFRICA BULAWAYO SALISBURY CEYLON COLOMBO CHAD FORT-LAMY CHILE SANTIAGO COLOMBIA BARRANQUILLA BOGOTA CALI MEDELLIN COSTA RICA SAN JOSE DAHOMEY COTONOU DEMO-CRATIC REPUBLIC OF THE CONGO KINSHASA LUBUMBASHI DENMARK COPENHAGEN ODENSE DOMINICAN REPUBLIC SANTO DOMINGO SANTIAGO DE LOS CABALLEROS ECUADOR GUAYAQUIL QUITO EIRE DUBLIN FIJI ISLANDS SUVA FINLAND HELSINKI FRANCE BORDEAUX CLERMONT-FERRAND DIJON GENNEVILLIERS GRENOBLE LILLE LYON MARSEILLE MONTPELLIER NANCY NANTES DADIES DE MES DOUBORS DOUBORS DOUBOR TOULOUSE TOULOUSE FOULD SE FORME FOR DUBLIC MARSE INDIES FOUL SET DUBLIN FIJI ISLANDS SUVA FINLAND HELSINKI DOMINGO SANTIAGO DE LOS CABALLEROS ECUADOR GUAZYAQUIL QUITO EIRE DUBLIN FIJI ISLANDS SUVA FINLAND HELSINKI FRANCE BORDEAUX CLERMONT-FERRAND DIJON GENNEVILIJERS GRENOBLE LILLE LYON MARSEILLE MONTPELLIER NANCY NANTES PARIS REIMS RENNES ROUEN STRASBOURG TOULOUSE TOURS FRENCH GUIANA CAYENNE FRENCH WEST INDIES FORT-DE-FRANCE POINTE-A-PITRE TRINITE GABON PORT GENTIL GERMANY BERLIN DUSSELDORF HAMBURG HANNOVER MUNICH STUTTGART GHANA ACCRA GIBRALTAR GIBRALTAR GREECE ATHENS GUATEMALA GUATEMALA GUNEA CONAKRY GUYANA GEORGETOWN HAITI PORT-AU-PRINCE HONDURAS SAN PEDRO SULA TEGUCIGALPA HONG KONG HONG KONG ICELAND REYK-JAVIK INDIA BOMBAY CALCUTTA INDONESIA DJAKARTA IRAN TEHERAN IRAQ BAGDAD ISRAEL TEL AVIV ITALY BOLOGNA GENDA PADUA ROME TURIN IVORY COAST ABIDIAN JAMAICA KINGSTON JAPAN AKITA AOMORI ASAHIGAWA CHIBA GINEA (GENDA PADUA ROME TURIN IVORY COAST ABIDIAN JAMAICA KINGSTON JAPAN AKITA AOMORI ASAHIGAWA CHIBA GINEA KOSAKA KUMAMOTO KUSHIRO KYOTO KYUSHU MAIZURU MATSUE MATSUMOTO MATSUYAMA MITO MIYAZAKI MORIOKA MURORAN NAGANO NAGAOKA NAGASAKI NAGOYA NIIGATA NIIHAMA NUMAZU OHITA OHMIYA OKAYAMA ONOMICHI OSAKA SHIKOKU SHIZUOKA TAKASAKI TOHOKU TOKUSHIMA TOKYO TOTTORI TOYAMA TSU WAKAYAMA YAMAGATA YAMAGUCHI YOKOHAMA JORDAN AMMAN KENYA MOMBASA NAIROBI KOREA PUSAN SEOUL KUWAIT KUWAIT LEBANON BEIRUT LIBYA TRIPOLI LUXEMBOURG LUXEMBOURG MALAGASY REPUBLIC TANANARIVE MALAYSIA KUALA LUMPUR MALI BAMAKO MALTA VALETTA MEXICO CHIHUAHUA EJERCITO GUADALAJARA MEXICO CITY MONTERREY OBREGON SAN LUIS POTOSI TIJUANA YERACRUZ MOROCCO CASABLANCA MOZAMBIQUE LOURENCO MARQUES NETHERLANDS AMSTERDAM ARNHEM GRONINGEN THE HAGUE MAASTRICHT ROTTERDAM 'S HERTOGENBOSCH UTRECH NETHERLANDS AMSTERDAM ARNHEM GRONINGEN THE HAGUE MAASTRICHT ROTTERDAM 'S HERTOGENBOSCH UTRECHT NETHERLANDS ANTILLES ARUBA WILLEMSTAD NEW ZEALAND AUCKLAND CHRISTCHURCH DUNEDIN HAMILTON INVERCARGILL LOWER HUTT NAPIER PALMERSTON NORT HE HAGUE MAASTRICHT ROTTERDAM 'S HERTOGENBOSCH UTRECHT NETHERLANDS ANTILLES ARUBA WILLEMSTAD NEW ZEALAND AUCKLAND CHRISTCHURCH DUNEDIN HAMILTON INVERCARGIL LOWER H SOUTH AFRICA BELLVILLE BENONI BLOEMFONTEIN CAPE TOWN DURBAN EAST LONDON GERMISTON JOHANNESBURG KIMBERLEY KRUGERSDORP PIETTERMARITZBURG PORT ELIZABETH PRETORIA VEREENIGING SPAIN BARCELONA BILBAO MADRID SURINAM PARAMARIBO SWEDEN GOTEBORG MALMO STOCKHOLM SWITZERLAND BASEL BERNE FRIBOURG GENEVA LAUSANNE ZURICH SYRIA DAMASCUS TAIWAN TAIPEI TANZANIA DAR ES SALAAM THAILAND BANGKOK TOGO LOME TRINIDAD PORT OF SPAIN DAMASCUS TAIWAN TAIPEI TANZANIA DAR ES SALAAM THAILAND BANGKOK TOGO LOME TRINIDAD PORT OF SPAIN BRATUNIS TURKEY ANKARA ISTANBUL UGANDA KAMPALA UNITED KINGDOM ABERDEEN BELFAST BIRMINGHAM BOLTON BRADFORD BRISTOL CARDIFF CHATHAM CHESTER COVENTRY CRANFORD DUBLIN DUNDEE EDINBURGH EXETER GLASGOW HULL ILFORD LEEDS LEICESTER LIVERPOOL LONDON LUTON MANCHESTER MIDDLESBOROUGH NEWCASTLE NORWICH NOT-TINGHAM PARK ROYAL PLYMOUTH PRESTON SHEFFIELD SLOUGH SOUTHHAMPTON SURREY SUSSEX SWANSEA WOLVERHAMPTON UNITED STATES AKRON ALBANY ALBUQUERQUE ALLENTOWN AMARILLO ANCHORAGE ATLANTA AUGUSTA AUSTIN BALTIMORE BATON ROUGE BEAUMONT BILLINGS BINGHAMTON BIRMINGHAM BLOOMFIELD BOISE BOSTON BRIDGEPORT BROCKTON BURFFALO BURLINGAME BURLINGTON CAMBRIDGE CAMDEN CANTON CASPER CEDAR RAPIDS CHARLESTON CHARLOTTE CHATTA-NOOGA CHICAGO CICERO CINCINNATI CLARKSBURG CLAYTON CLEVELAND COLTON COLUMBIA COLUMBUS, GA. 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MANUFACTURING AND ENGINEERING: BELGIUM LIEGE SENEFFE BRAZIL SANTO AMARO VELEIROS CANADA GREENFIELD PARK SCARBOROUGH COLOMBIA BOGOTA FRANCE PANTIN VILLERS-ECALLES MEXICO GUADALAJARA PHILIPPINES MANILA UNITED KINGDOM CROYDON CUMBERNAULD GLENROTHES STRATHLEVEN UNITED STATES BIRMINGHAM CARLSBAD CARL-STADT CINCINNATI CITY OF INDUSTRY DALLAS DENVER DETROIT DOWNINGTOWN EAST WHITELAND FORT WASHINGTON HOLLYWOOD HOWELLVILLE KIRKSVILLE MAYWOOD MISSION VIEJO PAOLI PARK RIDGE PASADENA PISCATAWAY PLAINFIELD PLYMOUTH RADNOR ROCHESTER SANTA BARBARA TOLLAND TREDYFFRIN WESTLAKE

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