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SYSTEM B1800/B1700

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Burroughs Corporation

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2222 2673

B1800/B1700 SYSTEM/ELOGOUT

PRODUCT SPECIFICATION

REV LTR	REVISION ISSUE DATE	APPROVED BY	REVISIONS
A	3/14/78		Software Release Level Mark 7.0. Formerly released as section seven of P. S. 2212 5579, B1800/B1700 MCP UTILITIES.
B	5/4/78		Software Release Level Mark 7.0. Major revision. This program has been entirely rewritten.

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GENERAL DESCRIPTION

SYSTEM/ELOGOUT is a system utility program designed to analyze the Field Engineering Maintenance Log (SYSTEM/ELOG) and produce organized, meaningful reports of the results. Errors are reported in chronological order by unit-mnemonic, with appropriate totals summarized at the end of the output listing.

RELATED DOCUMENTATION

Name	Number
B1800/B1700 Software Operational Guide	1068731

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OPERATING INSTRUCTIONS

The ET input message is used to transfer the SYSTEM/ELOG file, creating a file labeled "ELOG/#<integer>" and a new (empty) SYSTEM/ELOG file. SYSTEM/ELOG is executed automatically by the MCP following the transfer, and is file-equated to the transferred elog file.

If it is necessary to analyze a previously-transferred elog file, SYSTEM/ELOGOUT must be executed as follows:

    EX SYSTEM/ELOGOUT FI ELOG.FILE NAME=ELOG/#<integer>;

PROGRAM SWITCHES

The program switches control certain functions of SYSTEM/ELOGOUT.

SWITCH 0

Switch 0, if set to a non-zero value, causes the input elog file to be closed with PURGE after the input phase has been completed. If switch 0 is set to zero (the default value), the input elog file will not be removed from disk. The setting of switch 0 has no effect if SYSTEM/ELOG is being analyzed, since the active elog file cannot be removed from disk.

SWITCH 1

Switch 1, if set to a non-zero value, causes the entire output listing to be single-spaced, suppressing all page skipping and multiple spacing operations. If switch 1 is set to zero (the default value), the default printer spacing will be employed.

LOW-ORDER SWITCHES

The low-order program switches may be used to specify the system serial number, as shown below:

    MODIFY SYSTEM/ELOGOUT SW=<system number>

If the system serial number is specified, it will be printed on the first page of the output listing. If it is necessary to specify the system serial number as well as other functions, the serial number must be specified first in the control string.

    MODIFY SYSTEM/ELOGOUT SW=513 SW0=1 SW1=1

DESCRIPTION OF OUTPUT

A number of reports are produced by SYSTEM/ELOGOUT, providing a detailed analysis of errors by unit and hardware type. The output of these reports is described in the following paragraphs.

SYSTEM INFORMATION REPORT

The first portion of the output listing produced by SYSTEM/ELOGOUT consists of information describing the system and the elog file being analyzed. Information printed includes the system serial number (if one was specified in the program switches), plus the name and period of time covered by the elog file being analyzed.

The dates and times of all Clear/Starts (if any) that occurred during the period of time covered by the elog file are listed in the order they occurred.

A description of the system I/O configuration, listing each hardware device together with its unit-mnemonic, device-id (control-id in hexadecimal), and hardware address (port/channel), is included at least once if a Clear/Start occurred during the period of time covered by the elog being analyzed. Additional descriptions are printed for each Clear/Start where the I/O configuration was different from that at the previous Clear/Start. Note that the system I/O configuration description does not include any datacomm devices or controls.

A description of the system software being used is included at least once if a Clear/Start occurred during the period of time covered by the elog being analyzed. Additional descriptions are printed for each Clear/Start where the software configuration was different from that at the previous Clear/Start.

Note: The I/O Configuration and Software Configuration reports cannot be produced if no Clear/Starts occurred during the period of time covered by the elog file being analyzed. The information required for these reports is only placed in the elog file by the MCP during the Clear/Start operation.

OPERATOR MESSAGE REPORT

Messages entered in the elog by the system operator (refer to the EM input message in the B1800/B1700 Software Operational Guide) are listed chronologically, together with the date and time of entry.

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MEMORY ERROR REPORT

Memory parity errors for B1830 and B1700 systems are listed in chronological order, if any were detected. The report produced includes the date and time of the failure, the job number of the program that was terminated together with its base and limit addresses, and the address of the parity error. If the parity error could not be located by Gismo (possibly indicating a read out-of-bounds error by the program), the parity address will be "FFFFFF".

The report produced for the B1870/B1860 systems differs slightly due to the use of error-correcting memory. It includes the date and time of the error, the hexadecimal representation of the processor elog register (which reports the memory error to the software) and the decoded representation of this register. This decoded information enables the Field Engineer to quickly isolate and repair the failure.

CONSOLE CASSETTE ERROR REPORT (B1800 ONLY)

This report is produced if any data errors are detected during programmatic loading of a cassette through the cassette reader in the B1800 system console (e.g., with SYSTEM/LOAD.CAS), and includes the date and time of the error, the job number of the program reading the cassette, and the program's base and limit addresses.

UNIT ERROR REPORT

Peripheral unit errors are reported and summarized by unit-mnemonic and, where multiple controls are connected to the same unit (e.g., a PE/NRZ tape exchange), by hardware address. Each error reported on the unit is listed chronologically, together with the date and time of the error, the result descriptor in hexadecimal, the I/O op code and its mnemonic description (R=read, W=write, S=space), the disk address (disk devices only), the data length (in bytes) requested in the I/O descriptor, the actual length (in bytes) of the data transferred, the number of retries attempted (often shown as zero for MCP operations, even though retries are actually attempted), the job number of the program encountering the error, the label of the file (always the pack-id for disk devices), the serial number (for tapes and disk packs/cartridges), the reel number (tapes only), and the Extended Result Descriptor (if any). If an Extended Result Descriptor is present, it is decoded on the following lines into its alphanumeric description.

Following the chronological error listing, an analysis of the result descriptors is listed. The result descriptors are listed in hex (6 digits) and binary (24 digits) together with a description of the error. Each result descriptor is listed once in the summary, regardless of the number of times it may have occurred in the elog.

For disk devices, an additional report analyzes the errors by
disk address, sorting in ascending order and summarized by
address and actual data transfer length (in sectors). Each line
presents the errors for a particular disk address and actual
length pair, giving the total number of retries (retry counts
shown as zero in the chronological listing are counted as one
retry), and decoding the beginning and ending disk addresses
involved in the operation into their hardware locations. This
decoding can enable the Field Engineer to locate not only the
source of the failure, but also to make reasonable inferences as
to errors that may be caused by a single read/write head, even
though the addresses may be widely scattered across an entire
disk surface.

UNIT ERROR SUMMARY

The final report produced summarizes the peripheral unit errors
listed in the Unit Error Reports, providing totals for each
unit-mnemonic (and hardware address, if applicable). For each
device listed, the total errors occurring on input (read and
space operations) and output (write operations), as well as the
total number of memory access errors, are presented in tabular
form.

ERROR MESSAGES

If SYSTEM/ELOGOUT analyzes an elog file and finds no records in
it, the program will display the following message and go to
end-of-job.

    <elog-file-id> EMPTY

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