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GENERAL MANAGER  
SANTA BARBARA PLANT



**PRODUCT SPECIFICATION**

REV LTR	REVISION ISSUE DATE	APPROVED BY	REVISIONS
A	3/22/78	<i>J. Hale</i>	Original issue - Software Release Level Mark 7.0.

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 GENERAL MANAGER  
 SANTA BARBARA PLANT

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COMPANY CONFIDENTIAL  
B1800/B1700 QWIKLOG  
P. S. 2222 2715 REV A

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### GENERAL DESCRIPTION

QWIKLOG is designed to provide a convenient and compact analysis of job information contained within an MCP log file. The log is a disk file of system activity maintained by the MCP when the LDG option is set (refer to the SL System Control Instruction). Data is presented by QWIKLOG in two distinct formats: a tabular summary of selected information about each job, and a "chronograph" which graphically indicates schedule and mix activity at any point in time.

### RELATED DOCUMENTATION

Name -----	Number -----
B1800/B1700 Software Operational Guide	1068731
B1800/B1700 MCP II	P.S. 2212 5462

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### OPERATING INSTRUCTIONS

By default, QWIKLOG analyzes the currently active log file, SYSTEM/LOG. SYSTEM/LOG may be "transferred" at any time by the operator (refer to the LG and TL system Control Instructions) or automatically by the MCP upon reaching maximum capacity. This action renames SYSTEM/LOG as LOG/#<integer> and creates a new SYSTEM/LOG file. Such a transferred log file may be analyzed by file-equating the file LOGFILE when executing QWIKLOG, as follows:

```
EX QWIKLOG;FILE LOGFILE NAME LOG/#<integer>
```

where the six digit <integer> identifies the desired log file.

If file LOGFILE is file-equated to the single name of LOG, QWIKLOG requests the <integer> with an ACCEPT message. Leading zeroes need not be provided and, as with all program input, the input message may be entered in free-format.

QWIKLOG normally prints both parts of the analysis described above for all jobs within the log file. If, however, QWIKLOG is executed with SW8 = 1, it requests information to control its actions. The three messages which appear are:

```
JOB SUMMARY? (Y/N)
```

Enter Y, YES, N, or NO.

```
GRAPH? (Y/N)
```

Enter Y, YES, N, or NO.

```
JOB NUMBER RANGE: "ALL" OR <FROM> [<TO>]
```

This allows selection of a specific range of jobs for analysis. ALL specifies that all jobs within the given log file are to be processed (as is done in the default case); otherwise the first integer (<FROM>) is used as the lower bound for the job number range to be analyzed. Analysis continues for the remainder of the log file, unless a second integer (<TO>) is provided to indicate an upper bound. QWIKLOG requires in this case that <TO> not be less than <FROM>.

If analysis is done upon SYSTEM/LOG, QWIKLOG stops after the job immediately preceding itself, unless further restricted in range as previously described.

Two other program switches affect the operation of QWIKLOG. Switch 0 is used to specify the width of the line printer being used; the default of zero (0) implies 132 print positions and a one (1) indicates 120 print positions. Users with 120 column printers can permanently set this switch with the following MCP

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**Control Instruction:**

**MODIFY QWIKLOG SW 0=1**

**If SW9 = 1, job summary information is not printed across page perforations.**

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### QWIKLOG DESCRIPTION

The following information is provided in the job summary portion of the QWIKLOG output. Fields inappropriate for a particular job are left blank (for example, an RS-ED job has no BOJ or EOJ date and time).

1. Job Accounting Number. This is a sequential value associated with each job which, unlike the job number, does not wrap around from 9999 back to one, and hence provides a unique identification number for the job. An asterisk preceding the Job Accounting Number indicates that the job was part of a job stream (refer to the THEN, AFTER, and AFTER.NUMBER control instruction attributes).
2. Program name.
3. Compiler name if the execute type is a compilation. For a Clear/Start, this field is used to show the MCP version.
4. Job number.
5. Charge number, if non-zero.
6. Execute type. Items that may appear are EXECUTE, COMPILE & GO, COMPILE & SAVE, COMPILE TO LIBRARY, GO PART OF COMPILE & GO, and GO PART OF COMPILE & SAVE.
7. Schedule, processor, and memory priorities.
8. Family name of the interpreter (e.g., COBOL).
9. Scheduling date and time.
10. BOJ date and time.
11. EOJ date and time.
12. Elapsed execution time.
13. Processor time consumed.
14. Job termination type. Items that may appear are NORMAL, DS-ED (includes DP-ED), SYNTAX ERRORS, ABORTED (by a Clear/Start), RS-ED, and RUNNING. The latter indicates that the job was still in the mix when QWIKLOG was executed or when the log was transferred.
15. Static memory assigned (in bits).
16. Dynamic memory assigned (in bits).
17. Total non-code memory assigned (in bits), defined as



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<static memory> + <dynamic memory> + <run structure nucleus>. Note that this figure does not include structures such as file buffers. Users interested in a more complete analysis of memory requirements for a given program should use the CODE/ANALYZER utility. In the entry for a Clear/Start, this field contains the main memory size of the system in K bytes. (1K =  $2^{10}$  = 1024 bytes = 8192 bits).

18. The number of files declared within the program.
19. The number of code segment overlays (program, Interpreter and MICRO.MCP) caused by execution of the program.
20. The number of data overlays performed during execution.
21. Segments of VIRTUAL.DISK (disk for data overlays) assigned.

The following mnemonics are used within the chronograph:

*	Clear/Start
S	Program Scheduled
E	Program Execution
C	Compiler Execution
R	Program Running
X	Abnormal Termination

The "R" character indicates that a program was still running at the time of analysis or when the log was transferred. Thus no EOJ time is available to properly graph with the "C" or "E" mnemonic.

The "X" character replaces the "C" or "E" mnemonic for the last minute of a job that was DS-ED or was aborted due to a Clear/Start to spotlight the abnormal termination.

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### ERROR MESSAGES

1. INCOMPATIBLE SYSTEM SOFTWARE - MUST BE <level> MCP...EOJ

The format of log records is subject to change between software releases. In order that valid results be insured, QWIKLOG ascertains that it is being run with the proper MCP and aborts with this message should an incompatibility be detected.

2. [TRY AGAIN] ENTER LOG NUMBER

If LOGFILE is file-equated to the single name of LOG, QWIKLOG requests the log identification integer with this message.

3. <filename> NOT ON DISK...EOJ

The logfile on which the user requested analysis was not in the disk directory.

4. [TRY AGAIN...] JOB SUMMARY ? (Y/N)  
 GRAPH

With Switch 8 set to one (SW8=1), QWIKLOG requests specific instructions on what it is to do. The user can request either or both of the two outputs presented by QWIKLOG. The preface "TRY AGAIN..." is emitted if the user has supplied other than "Y", "YES", "N", or "NO" to these two requests.

5. [TRY AGAIN...] JOB NUMBER RANGE: "ALL" OR <FROM>[<TO>]

The third quantity of information requested if Switch 8 is set to one is the job number range to be processed.

6. NULL INPUT INVALID

The user entered an empty input line in an ACCEPT message.

7. STARTING JOB NUMBER "<integer>" ISN'T NUMERIC  
 STOPPING

A non-numeric job number was provided in response to [TRY AGAIN...] JOB NUMBER RANGE: message above.

8. INVALID INPUT: "<token>"

QWIKLOG decoded operator input that was contextually invalid.

9 STOP JOB # CHANGED [FROM <integer>] TO <integer>

If analysis is attempted on SYSTEM/LOG, QWIKLOG insures that the job number range terminates at the job immediately preceding itself, unless further limited by a response to

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message (5) above. This message informs the user that the job number range has been altered.

10. STOPPING JOB NUMBER (<integer>) > STARTING JOB NUMBER (<integer>)... EOJ

QWIKLOG terminates if the job number range provided in response to message (5) is non-ascendingly ordered.

11. HEY...I NEED SOME WORK...EOJ

This message is QWIKLOG'S response if the user specifies through his response to message (4) that neither a job summary nor a graph are to be produced.

12. UNEXPECTED EOF ON LOG-PROBABLE HARDWARE ERROR-EXECUTION CONTINUE

QWIKLOG hit EOF on the log file it was processing at a point that was unexpected, being in the middle of the series of records normally associated with each job. Processing continues on those job records already found in the log file.

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