

MPRO-3

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5 June 1959

HARVEST Supervisory System

I. Scheduler

A. Schedule processing based on:

1. Most efficient processing sequence within priority for single programs.
2. Best fit between I/O usage and internal time when multiprogramming.

B. Load programs from system

C. Insert and check parameters

1. Input and output tape identification
2. Modifications
3. Control information
4. Test data and qualifying answers

D. Produce a printed schedule with necessary operating information

1. Special setup information
2. Location of tapes
3. Components used

E. Produce a processing tape

F. Write procedures when more than a single program is necessary to produce final results:

1. Retain package information when the same sequence of programs are used in a sustaining job.
2. Single schedule record for second and successive requests.

9 June	Act	Info
1		
2	WIP	
3	WIP	
4	WIP	
35		
FILE		
OTHER		

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II. Processor

A. Internal capabilities

- 1. Interpret and adjust schedule**
- 2. Issue operating instructions**
 - a. Tape units
 - b. Tape label
 - c. Tape filing
- 3. Handle all interrupts**
- 4. Handle I/O**
 - a. Allocate I/O for programs
 - b. Read, write, tape identification
 - c. Console, Inquiry requests
- 5. Log operations**
 - a. Components used
 - b. Running time
 - c. Errors
 - d. Monthly billing
- 6. Allocate memory**
 - a. Relocate programs efficiently
- 7. External tape history**
 - a. Tape identification
 - b. Purge dates
 - c. Record length
 - d. Record counts
 - e. Block length
 - f. Filing slot

Record above items on tape labeling typewriter
- 8. TRACTOR tape control**
 - a. Cartridge assignment
 - b. File information
 - c. Automatic maintenance
- 9. Adjust for missing components**
 - a. High Speed Memory
 - b. TRACTOR System

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10. Unattended operation of abbreviated system (HARVEST, TRACTOR, Printer)
11. Retain schedule information on skipped processing for automatic insertion in next scheduling period.
12. Multiprogramming
 - a. Retain necessary registers
 - b. Switch on I/O request where practical
 - c. Switch on unit of time where I/O requests are infrequent

III. Automatic debugging

- A. Generate test data.
 1. Record on input data
- B. Interpret debug instructions.

1. Dumps (all types)
2. Trace
3. Snap shots
4. Forced options
5. If

- C. Format outputs
- D. Loop and system protection.

IV. System maintenance

- A. Update system
 1. System on TRACTOR, Disk, or 729 IV.

The above are desirable specifications not necessarily what Task 2 of FARM BOY requires.

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MPRO-03

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