



SW8100

MIPS/TS Package

RESUME

Input/output spooling and fast swapping of job processes (typically 300 milliseconds) are among the functions performed by the MIPS/TS Package, which offers efficient service for interactive users combined with efficient utilization of small to medium-scale computers. Some of the features of this package are:

- Multiuser real-time operating system with facilities for handling slow devices.
- Especially well-suited to multiterminal systems with several on-line terminals per job process.
- Increases the number of applications accessible to users without the need for more primary storage.
- Dynamic priority scheduling strategy based on the current interactiveness of the jobs being run.
- User catalog enhances security and speeds the creation of job processes.
- Several MIPS/TS systems can run simultaneously on large computers.
- MIPS/TS can be tailored to fit the installation.

DESCRIPTION

The MIPS/TS Package comprises the operating system SOS and the service modules TEM and PRIMO.

SOS swaps up to 19 processes, or logical computers, each containing a job, between backing storage and a single job execution area in the primary store. When a job is swapped in, it runs until it must wait for a terminal or until its time slice expires, whereupon it is swapped out. A job loses priority when it consumes its time slice without being accessed by a terminal. A job gains priority when it receives input from a terminal and is thereby ready to run. A job is swapped in when its priority is higher than that of the other jobs. Batch or background jobs can be run concurrently to utilize the time not required by interactive jobs.

SOS supports the handling of fast, block-oriented devices, such as disc backing stores, magnetic tape stations, and flexible disc units.



TEM supports the handling of terminals (formatted visual display units and teletype-compatible types). Terminal input/output is multiplexed to/from the job, allowing the latter to access a pool of terminals through a single data stream by means of the standard input/output system of the programming language employed. One or more pools may be defined for each job, and links between individual terminals and a given pool may be created and removed dynamically.

TEM permits the job to request transfers of transactions between terminals and a spooling area on backing storage, and then proceed without delay concurrently with the transfer operations.

PRIMO supports the handling of character-oriented devices, such as local and remote printers, card readers, paper tape punches, paper tape readers, and teletype tape readers.

PRIMO permits the job to request the transfer of files between such a device and a spooling area on backing storage, and then proceed without delay concurrently with the transfer operation.

SOFTWARE PREREQUISITES

SW8001 Basic System Package (datasheet RCSL 42-i 1275).
SW8010 System Utility Package (datasheet RCSL 42-i 1276).
SW8500 Algol Package (datasheet RCSL 42-i 1293).