



SW3002/1

MUS Operating System Package

RESUME

Resource allocation and driver control of a primary input device are handled by the MUS Operating System, which is based on the RC3600 Multiprogramming Utility System, and constitutes a minimized run-time system for RC3600 systems without discs.

Some of the features of the MUS Operating System Package are:

- Autoload/program load.
- Storage allocation.
- Scheduling of parallel activities.
- Loading, starting, stopping, and removal of processes.
- Interprocess communication and synchronization.
- Device handling.

DESCRIPTION

The MUS Operating System Package comprises the Multiprogramming Utility System Monitor and system procedures, the interpreter for the high-level MUSIL programming language, driver programs for the console and a primary input device, and an Operating System module.

The Monitor module implements the RC3600 multiprogramming concept by simulating parallel execution of several active programs (processes) on a single physical processor. Furthermore several commonly used functions are included for interrupt handling, device synchronization, and message exchange.

The system procedures provide multibuffered I/O handling of data on character, record, and block levels operating on so-called zones. The zone data structure is a collection of information and associated data buffers necessary for performing standard driver I/O processing and exception handling.

A number of commonly used standard procedures are included to minimize core storage requirements in standard driver programs and to facilitate user programming.



Not included, but supported, is the RC3600 Coroutine Monitor, which comprises a set of re-entrant utility procedures facilitating mutual synchronization and exchange of data via semaphores between cooperating parallel activities within one program (process).

SOFTWARE PREREQUISITES

None.