



SW3001/1 DOMUS Operating and Utility System Package

RESUME

Dynamic resource allocation and operations on cataloged files are handled by the DOMUS Operating System, which is based on the RC3600 Multiprogramming Utility System. A large number of suitable Utility Programs are available, with a standardized call parameter format and fetching of error messages from a common message file.

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

- Autoload/program load.
- Dynamic storage allocation.
- Extensive file handling facilities, including subcatalogs and editing support.
- Program development facilities.
- Field proven Utility Programs running all standard job tasks.
- Loading, starting, stopping, and removal of processes.
- Scheduling of parallel activities.
- User process message interface for Operating System tasks.
- Virtual memory mapping.
- Interprocess communication and synchronization.
- Library file/device descriptor support for the high-level programming language MUSIL.
- Device handling.
- Dual processor communication.

DESCRIPTION

The DOMUS Operating System Package comprises the RC3600 Multiprogramming Utility System Monitor and system procedures, the MUSIL interpreter, the memory mapping module, the file handler module, a number of currently used driver programs, and an Operating System module.

The Monitor module and system procedures implement the RC3600 multiprogramming concept by simulating parallel execution of several active programs on a single physical processor.

A standard RC3600 Coroutine Monitor is also available, comprising a set of re-entrant utility procedures, which facilitate mutual synchronization and exchange of data via semaphores between cooperating parallel activities within one program (process).



The file handler module, CAT, permits fast backing-storage access of modified random access files in support of mass storage, fixed or removable discs, removable cartridge discs, and flexible discs in various combinations. The mapping of physical units into catalog units may include several physical units in one catalog unit and vice versa, with a flexible key-protected subcatalog structure supported for each main catalog.

A large number of field proven Utility Programs are available for standard tasks (e.g. copy, save, or create a file) as well as more complex functions (e.g. batch execution, program editing, and system back-up).

The Operating System supports 128 K bytes of memory in one processor, while the virtual memory mapping concept and the support of dual processor systems accommodate the need for larger program memory. Furthermore the high modularization of the system enables the user to achieve an efficient small size/high speed production environment for a large number of standard application packages, such as the RC BASIC/COMAL System, DATA ENTRY System, RCNET System, and IBM/CDC/UNIVAC Conversion Systems.

SOFTWARE PREREQUISITES

None.