

**PROGRAM
PRODUCT
SPECIFICATION****Distributed Processing
Transfer Facility****Type Number: 6629-00****SECTION I**

The Distributed Processing Transfer Facility allows for the functional distribution and cooperative processing of user jobs and files among multiple, separately-located OS/3 supported computer systems. This interchange is based on a standard Sperry Univac DDP protocol and command language which is implemented within each of the supporting operating systems.

The distribution of jobs and files between hosts in a DDP network can yield major benefits by providing improved business operations and management control. Jobs can be decentralized and given to the location responsible for gathering and using the data. Additional potential benefits include control over work priority, improved response times, and a fallback system in the event of down-time.

PRODUCT FEATURES

Historically, remote batch and job entry systems were limited to a master computer at a central site providing job facilities for slave computers physically located at the central site or connected to it by communication lines. Although this mode of operation is supported with OS/3, the DDP Transfer Facility extends this interaction in both directions with the communicating computer systems recognizing each other as peers.

The DDP Job Distribution Manager and File Transfer Manager allow the user to view each node in his DDP network as an available resource for scheduling and executing his work. Using simple commands, the user can initiate job distribution and file transfer within the system without concern for the intricacies of the hardware and software systems at each node, or the communications protocols needed to initiate and monitor the distribution of a job when the executing processor is remote from the initiator.

JOB TRANSFER MANAGER

The Job Transfer Manager allows the user to initiate and monitor execution of a job within the system. Any printed or punched output generated by the job will normally be routed to the initiating system. However, the initiator has the option to request routing of his output to any available node in the network.

Job scheduling facilities are accomplished using the following commands:

- Submit Command

The Submit command is used to request the performance of a job. The command works by sending a copy of the job (with its associated job control stream) to the node where the job is to be performed. If the user does not identify the node where the job is to be executed (by specifying a Node-ID with the Submit command), the job is executed on the home system.

- Submit Request Command

The Submit Request command is used to issue messages to a node's operating system. For example, a terminal operator may wish to accomplish a standard system function, such as printing a file, which is not defined as a special DDP function. When using this command, the local (home) node is assumed if a Node-ID is not given.

- Status Command

The Status command is used to request information about a job by the initiator. The system will advise the user whether the job is on queue, active, or completed. Information for active jobs will also be provided concerning the jobs running time, resources being used by the job, etc. Status requests may be made to any system within the DDP network. This command may also be used to inquire as to whether a node in the system is currently operational.

- Cancel Command

The Cancel command may be used to cancel a job submitted for execution on the home system or on a specified node. If the job has not begun execution (on queue at the executing node), it is simply deleted from that queue. If the job is active, it is terminated. Options are provided for the user to request a dump be taken when an active job is terminated or to specify that all output produced by the job be discarded.

- Talk Command

The Talk command provides the capability for a workstation or terminal operator in a DDP environment to:

- Display a message on the system operator console at a designated node. This might be an information message, a request for some operator action, or to solicit a response from the system operator.
- To respond to a message issued by an executing job. When a job is initiated in a DDP environment, messages generated by that job will be directed to the initiating terminal or workstation rather than the operator console. If the DDP initiator is logged on the system, the Talk command is used to return a response to the executing job. If the initiator has logged off, these messages will be directed to the console operator for reply.

When using this command, the local (home) node is assumed if a node-ID is not used.

FILE TRANSFER MANAGER

The File Transfer Manager provides the facility to transfer a file sequentially from one system to another. This facility is used to effect the transfer of files or to duplicate file structures between systems.

Files may be transferred between systems which contain the same file handling facilities, in which case no data transformation is required. Files with serially-accessible records may be transferred between systems of dissimilar architecture with or without character conversion. That is, a file can be transferred as a bit stream to be reformatted by the user, or it can be converted (character translation only) during the transfer process to the internal code recognized by the receiving system.

This product does not support automatic reformatting of records within a file or converting records to their equivalent form in the destination system when transfer is between systems of dissimilar architectures. In this case, the content of the file is treated as all character data or bit string data. Neither record sensitivity, record sequence, nor numeric field characteristics are recognized or adjusted during the transfer operation.

File transfer can be directly into the file area of the destination system or, if the destination file area is in use, transfer will be made to a temporary file area in the destination system. In the latter case, physical transfer from the temporary file to the destination file will be made when the destination file becomes available.

Files transmitted between systems can include:

- Data Files

Data formatted in the OS/3 MIRAM file format. Files transmitted from OS/3 are MIRAM files; files transmitted to OS/3 will be created in MIRAM format.

- Program Libraries

Any directly-accessible element (module) in a program library can be transferred between systems, or an entire library may be transferred.

The file transfer function is invoked using the following commands:

- Create Command

This command is used to create a catalog directory entry (optional) or a VTOC entry on any node within the system for a filename and to establish the characteristics for that file. Using key word declarations, the following characteristics may be defined:

- media: disk or tape
- element type: source, relocatable, absolute
- file access rights
- passwords
- file type
- volume VSN for private volumes

- Copy Command

The Copy command is used to transfer a copy of a file, a library, or a library module to another file.

In most cases, the characteristics of both files are supplied when the Create command is used. Thus, most transfer functions are simple requests to copy file A to file B. However, the ability is provided to specify additional file characteristics (i.e., file access rights, media, passwords, etc.) when the transfer is requested.

File characteristics supplied with the Copy command use the same standard key word definitions available with the Create command.

Files created with read/write passwords cannot be transferred unless the proper passwords are supplied with the copy command.

- Purge Command

This command is used to delete a filename, element, or file from a system directory. If the node-ID is not specified, the file is removed from the directory of the home system.

- Status Command

This command can be used to request the status of a file cataloged in a specified node (or home system if node is not provided). Information returned to the requestor consists of the current file characteristics defined for the file.

SOFTWARE REQUIREMENTS

The Distributed Processing Transfer Facility requires the following OS/3 software products for operation:

- SCS - OS/3 System Control Software
- ESS - Extended System Software
- ICAM Terminal Support Facility

HARDWARE REQUIREMENTS

The Distributed Processing Transfer Facility will operate on any System 80 model and configuration that meets the minimal hardware configuration requirement for that specific model and satisfies the main storage requirements specified in the software release documentation accompanying each release.

Additional main memory and/or peripheral devices may be required, depending upon the user's selection of the system's supported features and size of the user's programs, files, and/or data bases.

SECTION II

CUSTOMER EDUCATION

Sperry Univac makes available customer education related to this program product. Course availability and schedules are contained in the published course catalog. Charges for courses will be at the then prevailing rates. Customers should contact their Sperry Univac representatives for enrollment procedures.

PROGRAM PRODUCT SUPPORT

Sperry Univac will endeavor to correct any significant error in an unaltered current release of the Program Product, which the customer brings to the attention of Sperry Univac in accordance with established correction procedures. Sperry Univac does not represent or warrant that all errors will be corrected. This error correction service may result, from time to time, in update releases which the customer will install. Sperry Univac reserves the right to alter classification of this Program Product to reflect changes in policy or support requirements.

ORDERING INFORMATION

This Program Product and its associated documentation may be leased from Sperry Univac at separately stated lease charges. Upon execution of a Supplement for Program Products (Form UD1-1306) or its equivalent for this Program Product, the following will be provided:

1. A magnetic tape, diskette(s) or removable disk media in OS/3 Operating System format containing:
 - Distributed Processing Transfer Facility
 - The Installation Verification Program
2. One copy of the associated documentation:
 - Software Release Documentation
 - Distributed Processing Users Guide and Programmer Reference, UP-8811

