

SOFTWARE DATA SHEET

The Enhanced 2780/3780 Emulation enables a Wang 2200MVP or LVP system, when equipped with a 2228D Data Communications Controller, to communicate with other systems that utilize the 2780 or 3780 binary synchronous communications protocol.

With this software, a 2200 system that is operating in 2780/3780 emulation mode can be integrated into a point-to-point or multipoint environment at line speeds up to 19,200 bits per second (bps). Either the EBCDIC or ASCII character set can be used. When the ASCII character set is used, error checking is performed by means of a Longitudinal Redundancy Check (LRC). A Cyclic Redundancy Check (CRC) is performed when the EBCDIC character set is used.

The standard 2780 and 3780 protocols accommodate transmission of card reader/punch and printer data streams. With the Wang 2200 system, operator-entered or application-related card image data can be generated and stored on disk or diskette in the Wang TC (telecommunications) file format for subsequent batch transmission by the 2780/3780 emulation software. Incoming data streams are spooled to disk or diskette, where they are stored in Wang TC file format. Once the received data is stored, it can be processed at any time.

2200-TO-2200 COMMUNICATION

The 2780/3780 emulation software makes it possible to transfer data or program files between two 2200 systems. A modified 2780 protocol is used. In this 2200-to-2200 mode, the software retains the 2200 system's file characteristics.

2200

ENHANCED 2780/3780 EMULATION

- **Communicates with a host system supporting the 2780 or 3780 binary synchronous communications protocol**
- **Supports file or document transfer between a 2200 Series system and another Wang system**
- **Supports line speeds up to 19,200 bits per second**
- **Allows multipoint or point-to-point operation**
- **Uses the EBCDIC or ASCII character set**
- **Facilitates integration of user-written application or utility programs**

WANG

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DOCUMENT TRANSMISSION

In addition to data and program file transmission, the software enables document exchange between the 2200 system and another suitably equipped Wang computer or word processing system. When documents are exchanged, the Wang WPS communication mode is used. The WPS mode uses a modified 3780 protocol that does not require documents to be translated into a standard record file format before transmission.

COMMUNICATION UTILITIES

Wang supplies Advanced Batch Communication utilities in the Enhanced 2780/3780 Emulation. These utilities are BASIC language programs that enable users to prepare communication sessions offline and to have online access to 2200 communication facilities. Table 1 describes these online and offline utilities.

Users may develop their own communication utilities or application programs to work in conjunction with the Telecommunications Interface and offline utilities of the Advanced Batch Communication software.

TELECOMMUNICATIONS INTERFACE

The Telecommunications Interface (TCI) is a set of communication-access subroutines that can be called by either Wang-written (Batch File Driver) or user-written application/utility programs. The TCI can initiate the opening of a session over a communication line, initiate the transfer of information from the 2200 central processor to the 2228D communications controller for transmission during a session, initiate transfer of received data from the communications controller to the central processor, and initiate termination of the session.

COMMUNICATION CONTROL TASK

The TCI subroutines interact with the user-transparent Communication Control Task (CCT), residing in the central processor. The CCT loads

the Wang-supplied microcode into the 2228D communications controller, initializes this microcode, reads the stored configuration definitions, transfers appropriate translation tables and parameters into the controller, and controls the interaction between the TCI subroutines in the central processor and the microcode in the communications controller.

PHYSICAL INTERFACE

The 2228D Data Communications Controller is available with one of three physical interfaces: RS-232-C/V.24, RS-449, or X.21. Autodial capability (RS-366/V.25 compatible) is included with the RS-232-C/V.24 or RS-449 interface.

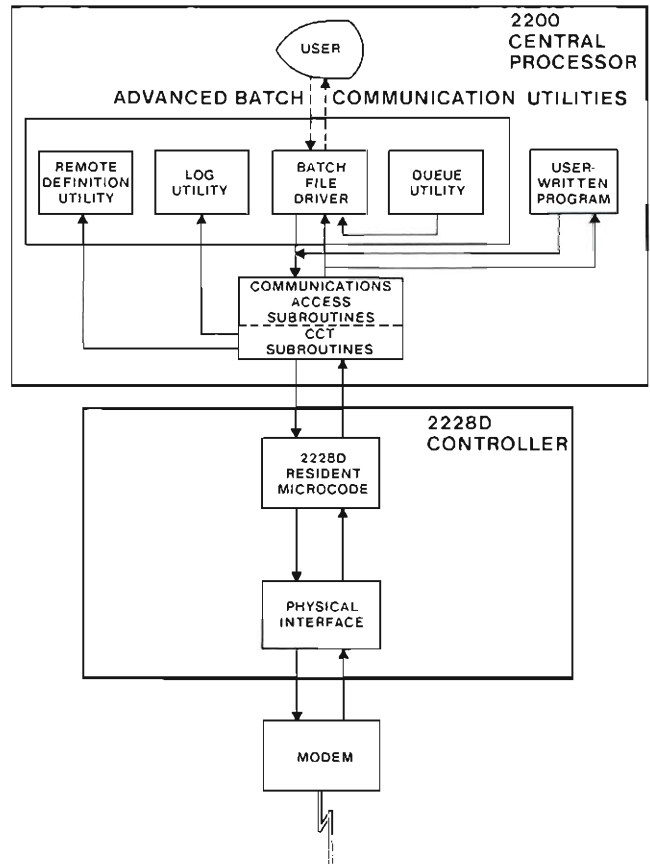


TABLE 1. ADVANCED BATCH COMMUNICATION UTILITIES

Utility	Purpose
Remote Definition	Enables the user to store a connection definition for the link(s) to one or more remote systems. The user specifies information for each link, such as the name for the remote definition and the time between line bids. The utility stores these specifications on disk or diskette for use by the Communication Control Task when it establishes a connection.
Communications Queue	Defines jobs (sets of related files/documents) and places them in a Job Queue for transmission to a specified location. Allows jobs to be displayed, modified, or deleted.
Communications Log	Allows inspection of the Communications Log file containing the activity record for a particular job.
Communications Print	Supports printing of received jobs.
Batch File Driver	Initiates connection; inspects Job Queue; sends transmission data from the central processor to the communications controller; assists in data transmission/reception; accepts received data from the controller; stores data on disk or diskette for subsequent use/printout; and establishes a received-job queue. When executed in foreground, enables an operator to initiate communications on demand; executed in background, enables files/documents to be transmitted automatically.

PRODUCT CHARACTERISTICS

Package Number

195-2193-3 (single-sided single-density diskette)

195-2193-5 (double-sided dual-density diskette)

Line Discipline

Binary synchronous point-to-point operation on dial-up lines, or multipoint operation on leased lines (half-duplex)

Line Speeds

Up to 19,200 bps

Error Detection

CRC for the EBCDIC character set; LRC for the ASCII character set

Disk File Format

The Wang TC file format and Word Processing File Management format are supported.

Memory Requirements

24K central processor memory required for individually initiated communication sessions; 56K required for queue-driven sessions; an additional 5K for universal global requirements

Communications Controller Requirements

A 2228D controller is required. For RS-232-C/V.24 and RS-366/V.25 connectors, order a 2228D-2 (32K) or 2228D-4 (64K). For RS-449 and RS-366/V.25 connectors, order a 2228D-2A (32K) or 2228D-4A (64K). For an X.21 connector, order a 2228D-2X (32K) or 2228D-4X (64K).

Modem Selection

The Wang 2228D controller is a DTE interface, compatible with a corresponding DCE interface. Modems at both ends of the communication link must be compatible with each other.

A Wang 2228N Null Modem may be used for communications up to 50 feet (15.2 meters) over RS-232-C/V.24 compatible cables.

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