SERIES 3200
PROCESSOR
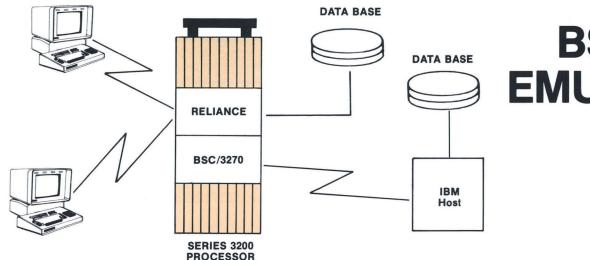
BSC/3270 EMULATOR

PRODUCT DESCRIPTION

The Perkin-Elmer 3270 Bisynch Emulation Package, BSC/3270 Emulator, allows Perkin-Elmer 32-bit computer systems to emulate the popular IBM 3270 family of terminal devices. The BSC/3270 Emulator is integrated with Perkin-Elmer's operating system, OS/32, and Reliance, the commercial transaction processing system.

Part of Perkin-Elmer's wide array of advanced data communications products, the BSC/3270 Emulator allows the user to maintain interactive dialogues with an IBM host machine, using the binary synchronous communication discipline. In this way, inquiries to the host data base can be made on an "ad hoc" basis.

The BSC/3270 Emulator is ideally suited to the transaction processing user who is interfacing with an existing IBM data processing center. As their processing requirements increase, users can conveniently off-load application programs and their associated data base files to one or more Perkin-Elmer 32-bit computer systems, thus achieving the benefits of distributed processing without complete software redevelopment.

FEATURES

- Distributed processing.
- May be attached to existing multidrop lines.
- Can appear as multiple control units.
- Can be attached to multiple host machines.
- Terminal and program emulation.

OPERATIONAL CHARACTERISTICS

The BSC/3270 Emulator provides a flexible solution to a variety of user requirements. This is accomplished by providing two distinct operating modes: the Virtual Terminal (VT) User Mode and the Perkin-Elmer Terminal Mode.

In the VT User Mode, application programs in a Perkin-Elmer computer interface directly to the IBM compatible host. The application program decides whether to process the transaction within the Perkin-Elmer system or to route the transaction to the IBM compatible host. This facilitates the development of distributed applications without modification of host application software where the data required may be either on the local database contained in the Perkin-Elmer system or on the master database contained on the IBM host. All this is accomplished with the simple to use program interface. The VT software handles all details of the physical interface to the IBM application.

The application program itself may build 3270 compatible screen images and transmit it to the host independent of terminal input. This allows a variety of different types of dialogues between the application program on the Perkin-Elmer system and the IBM application program including the following:

— Retrieving/storing local information prior to routing a 3270 formatted screen to the host application.
— Local application operation during failure of the IBM host or communication link with subsequent recreation of the 3270 screens from a log file.
— Batching transactions after processing on Perkin-Elmer and delivery to the IBM Application at end of day/off peak time periods.

In the Perkin-Elmer Terminal Mode, Perkin-Elmer terminals are logically connected to the IBM compatible host and made to appear as IBM 3270-supported devices by the emulation software. The Perkin-Elmer 32-bit computer system simply acts as an IBM 3270 Control Unit.

Both the Terminal Mode and the VT User Mode can coexist on the same Perkin-Elmer 32-bit computer system, along with other Perkin-Elmer software and applications.

USER BENEFITS

The user benefits from the use of BSC/3270 in the following ways:

1) Allows development of distributed processing applications using Perkin-Elmer's cost effective 32-bit computers and Reliance software.

2) Allows access to both an IBM compatible host and a Perkin-Elmer computer system from the same Perkin-Elmer 1251 terminal.

Implementation of distributed applications will reduce communication costs, improve response time, and provide the user with greater control over the accuracy of input and timeliness of output compared to on-line systems where a user site is provided only with terminals to the host computer.

In addition, use of a Perkin-Elmer 32-bit computer for distributed processing can improve reliability and prevent the waste of manpower. The local Perkin-Elmer system can be used for data entry when the host or communication lines fail. The stored data can then be transmitted after repair of the host or communication line. The Perkin-Elmer 32-bit computer can be configured onto multiple point-to-point or multidropped lines or communicate with more than one IBM host. Thus increasing its reliability and functionality.

The features of the BSC/3270 Emulator and the effectiveness of Perkin-Elmer's 32-bit computer systems and software provide the ideal vehicle for any IBM user to achieve the benefits of distributed processing in a phased manner. Modifications to existing IBM applications must be made only when required to meet new user requirements, while new applications are developed on Perkin-Elmer computers.

SYSTEM REQUIREMENTS

Minimum Hardware

- Any Perkin-Elmer 32-bit processor.

- 30KB of memory beyond other system requirements — an additional 24KB of memory is required if the Terminal Emulation Mode is to be used; plus buffer requirements of 2.5KB per terminal being emulated.
- Synchronous Data Set Adaptor

Software Prerequisites

- OS/32 R05.2 or higher

PRODUCT SPECIFICATIONS

The IBM 3270 family consists of Control Units (CU), Display Stations (DS), and Printers (P). Superimposed on these are a number of features and options. The 3270 Bisynch Terminal Emulation Package accommodates an extensive subset of devices, features and options. The following is a list of 3270 devices which can be emulated by this package:

- Control Units
  3271 CU, Model 2
  3274 CU, Model 1C
  3276 CU, Model 1

- Display Stations
  3275 DS, Model 2
  3277 DS, Model 2
  3278 DS, Model 2

- Printers
  3284 P, Models 2 and 3
  3286 P, Model 2
  3287 P, Models 1 and 2
  3288 P, Model 2
  3289 P

BSC/3270 also provides for many of the features and options which are normally available on its IBM counterpart, such as:

EBCDIC Line Code
ASCII Line Code
COPY Feature
Audible Alarm

RELATED DOCUMENTATION

48-011 BSC/3270 Emulator
                Introduction and Overview

48-012 BSC/3270 Emulator
                Reference Manual

PERKIN-ELMER

The information contained herein is intended to be a general description and is subject to change with product enhancement.

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