GCOS/BES2
Communications

The communications software support for Level 6 6/30 Models is designed to provide a powerful and flexible base upon which a user's application software can be built. It performs in a variety of communications environments ranging from simple data entry systems to highly sophisticated networking and distributed processing environments.

USER INTERFACE

User-written software interfaces with the communications subsystem through two available interfaces. At the lower level (physical interface), the user program can deal directly with the communications terminals in the same way that it controls locally connected unit record devices such as card readers, line printers, etc.

At this level the user can take full advantage of specific features of the communications terminals and effect optimizations to fit highly specialized environments.

At the higher level (logical interface), the user deals with communications terminals as if they were logical repositories of sequential data files. Data from/to a communications terminal is actually processed using the same techniques as those used to process data from/to disk files.

At this level, the user is masked from all hardware dependencies. Freed of any hardware considerations, the user can now concentrate on the application aspects of the program and rely on the support software to exercise total control over the movement of data to/from the outside world.

COMMUNICATIONS PROTOCOLS

All communication in Level 6 is accomplished through a software/firmware controlled microprocessor called the Multiline Communications Processor (MLCP). A single MLCP can support combi-

nations of up to eight lines with various speeds and characteristics. The communications software is designed to support one or more MLCPs having both synchronous and asynchronous lines with speeds up to 9600 bps.

Synchronous Line Control

IBM BSC/2780 — The Level 6 communications software includes support of a subset of the IBM BSC/2780 communications protocol. Significant features of this protocol are:

- Half-duplex point-to-point connections
- Normal and transparent mode
- Primary and secondary procedures
- Auto-answer

User applications software can be written to communicate with any host information processor which supports this protocol.

VIP 7700 — The Level 6 communications software includes support of the Series 7700 VIP subsystem in a nonpolled environment.

Asynchronous Line Control

The Asynchronous Line Control deals with a variety of teleprinter-compatible devices in a nonpolled environment. Specifically supported are the following terminals:

- ASR-33 (Keyboard only)
- ASR-35 (Keyboard only)
- KSR-33
- VIP 7100 or equivalent

USER DEVELOPED LINE CONTROL PROCEDURES

The design and the supporting documentation of the Level 6 communications software allow for easy insertion of user-developed terminal and communications protocol handlers.

CONFIGURATION SUPPORT

The Level 6 communications support includes powerful and easy-to-use configuration tools to allow the user to specify physical and logical attributes of specific communications environments. Configuration can be effected in interactive or in batch mode through the Configuration Load Manager using a set of commands specifically designed to maximize flexibility and ease of use. Configuration parameters can be specified or modified at initialization time, thus eliminating the need for time-consuming, offline processing steps and optimizing operating efficiency.

Honeywell