PROTOCOL

 Protocol   A set of rules for the transmission of data. It is   the format by which information is sent through the phone line system. Error correction routines and compression data are commom protocols. The newer and better version of transfer protocol is ZModem.

BAUD

 Baud   The unit of measuring modem signalling speed.The number of signal changes on the line per second. Most people treat bits per second (bps) and Baud as being the same, but it is a wrong assumption. Most current modem send more than one bit per Baud, so the number of bits per second isn't the same as the baud rate. The bps rate varies from 2400 upto 100 kps or more. It depends not only on the hardware but also the software and the connection line. Fiber optical cables can reach extremely high bps rates. Dial phone lines are limited by a modulation band and noise that typical values of 14400 bps (no compression) are the top limit.

PARITY

Parity   A means of checking transfer errors by adding an extra bit each ASCII character transmitted. Not very reliable and reduces the transfer ratio. Current error correction protocols have more efficient and reliable routines making parity checking not needed (set to "None").

DATA_BITS

Data Bits   Number of bits of data information transfered at a time. The   set of ASCII can be sent using 7 data bits.Normally data bits are set on 8, allowing a broader range of characters to be transferred.

STOP_BITS

Stop Bits   Number of bits   indicating the end of a data "package" sent and the begining of the next data "package".

SERIAL_PORT

 Serial Port   A connection that allows data to be transmitted bit by bit at a time.The standard serial port connector is the RS-232 and some variations.Modem operates as serial devices.Standard PC's generally have 4 serial ports, COM1-COM4.

DOWNLOAD

Download   Receiving   a file on your system from other remote computer or terminal.

UPLOAD

Upload   Sending a file from your system to other remote computer or terminal.

XMODEM

   Xmodem   Xmodem file transfer protocol (sometimes called MODEM7 or Xmodem/Checksum) is an error-checking protocol you'll encounter very frequently.   Created in 1978 by Ward Christensen and placed immediately into the public domain, Xmodem has become a de facto standard.   It can be found on almost all BBSs and online systems that offer error-checking protocols.   And, if a communications program offers any error-checking protocols at all--even one-- Xmodem will be among them. Xmodem transfers files in 128-byte blocks.   It adds an extra bit--called a checksum--to each block, which the receiving system uses to calculate whether or not the block was accurately transmitted.   (A complex algorithm, based on the contents of the block, is used for this calculation).It cannot be used to communicate at 7 data bits, as it transmits files in 8-bit format only.   If a hardware error-checking protocol or flow control is in effect, some Xmodem characters can be perceived as control characters, with unpredictable effects. Xmodem CRC.   CRC (Cyclic Redundancy Check) is an Xmodem option that modifies how Xmodem checks for errors.   CRC adds a second checksum bit to each block to enhance error checking.

KERMIT

 Kermit   Kermit is equally as popular as Xmodem.   Kermit is similar to Xmodem in that it transfers files in blocks--or packets, as they are referred to in Kermit.   It also resembles Xmodem in its use of a checksum technique for error checking (a checksum bit--based on packet contents--is included with each packet). An interesting feature of Kermit is that its packet sizes can be changed to accommodate fixed packet sizes on a remote system, or varying transmission conditions.

YMODEM

Ymodem: Ymodem operates in a manner very similar to that of Xmodem, the major difference between the two being the fact that Ymodem transmits data in 1024-byte (1K) blocks, rather than in 128-byte blocks.   Its major application is transmitting very large files. Ymodem's large block size increases transfer speed significantly when few or no errors are encountered.

ZMODEM

 Zmodem: Zmodem operates much faster than most other protocols. Zmodem blocks are 512 bytes in size. The protocol is relatively fast, even though it uses no buffering, which means a pause for disk access each time it sends or receives a block.   Efficiency rates of 99% (239 cps @ 2400 bps) are routinely achieved with many online services' implementations of Zmodem.

FLOW

Flow   Almost all computer systems uses Data Buffering and Flow Control, which means that incoming or outgoingdata is temporarily stored in RAM in what is called a buffer. Data buffering speeds up file transfer because it eliminates the number of times a transmission must be paused while the receiving or sending computer accesses its disk. At the sending end of a file transfer, enough data is read from disk to fill a RAM buffer, then sent from RAM.   When the send buffer is empty, the disk is read again.   Because the buffer holds enough data for several seconds of transmission, there is less disk access.   The reverse occurs at the receiving end, with data being written to disk only when the receive buffer is filled.   The flow of incoming data is paused when this occurs, and is usually controlled by XON/XOFF (^Q/^S) protocol.

AT_HAYES

AT HAYES   A widely accepted standard set of commands stablished by Hayes Microcomputer for controlling modems.All commands starts with "AT" for calling the modem's attention.