

McM51 MICRO ADDENDUM TO MONPLUS

The MONPLUS Monitor written by Steve Kemplin has been reassembled for use in the McM51 Micro. The first of the two MONPLUS "flavours" was chosen because of its minimal use of external memory locations therefore allowing the use of FLASH MEMORY in the place of the SRAM if desired.

Changes made to original MONPLUS:

1. Relocation of 3 bytes of external RAM (used by patch routine to allow access to internal RAM) from location 4FFCH to location 0FFFCH
2. PROGRAM MEMORY AREA (EPROM/FLASH) expanded to 0000H - 7FFFH
3. DATA(and/or program) MEMORY AREA (SRAM/FLASH) expanded to 8000H - 0FFFFH
4. DATA I/O address range 0000H - 7FFFH
5. Communication Interface upgraded to 9600 BAUD
6. Monitor Help Command ":" ? " has been added to give list of all possible monitor commands and their syntax
7. Monitor Command "Program EEPROM - P [addr] has been replaced with "Program Flash - P [addr]. The new subroutine provides proper timing for FLASH MEMORY programming.
8. Monitor Command "ERASE FLASH MEMORY - X " has been added to facilitate the erasure of the FLASH memory when located at address range (8000H - 0FFFFH)
9. The Jump Table has been changed to :

| LOCATION | TITLE | DESCRIPTION |
|----------|---------|---|
| 0030H | INIT | ;Entry point to the monitor |
| 0032H | DELAY | ;Pause for 1 msec times value in ACC |
| 0034H | SERIN | ;Serial Input Primitive |
| 0036H | GETC | ;Read char. from serial port, echo char. back ;to serial port. Convert lower case to upper |
| 0038H | PUTC | ;Send char. in ACC to serial |
| 003AH | PUTS | ;Send text string to serial port, ;DPTR points to start, null ends |
| 003CH | CRLF | ;Sends CR,LF to serial port |
| 003EH | ASC2HEX | ;Converts ASCII char in ACC to HEX equivalent, ;Returns value in lower nibble, upper nibble zeroes |
| 0040H | HEX2ASC | ;Converts lower nibble in ACC to ASCII char., ;returned in ACC |
| 0042H | RDHEX | ;Reads 2 char. from serial port, converts to byte ;returned in ACC |
| 0044H | WRBYTE | ;Writes byte in ACC to serial port, as 2 ASCII char. |