Procedure to Load/Update Bbr/Boot Code to a Satellite I/O Board

Thursday, February 03, 2000

The file **Satbmm.bin** is used to program two ATMEL 29C040 flash 32 pin dip chips using a flash programmer, for use on the BMM programming card. The satbmm.bin binary image file is loaded into the PILOT-146 programmer and the even/odd bytes are split and programmed into separate flash chips. (See Lane Wilson for help doing this). You can then use the BMM programming card on the satellite board to update both the BBR and BOOT code.

1.) Power down the machine.
2.) Remove the metal shield/guard on the PDB or GENINE satellite board.
3.) Install the BMM programming card onto the 100-pin BMM connector, taking care to align it to proper pin 1 orientation.
4.) Install a serial cable between the satellite board's diagnostic serial port (9 pin DB connector), and your computer.
5.) Run a terminal emulation program on the computer (like the Term.exe program) and set it to the correct COM port using a baud rate of 57600.
6.) Power up the machine, watch that the diagnostic leds on the satellite board to indicate that the boot code has started up, and is running. This will be indicated by the *heartbeat* led flashing on and off at .5 second intervals.
7.) The boot code (running from the BMM programming card) should have displayed its sign-on message to the PC's terminal screen by now.
8.) Type **update bbr** and wait for the BBR code to be re-programmed (no errors should occur).
9.) Type **update boot** and wait for the BOOT code to be re-programmed (no errors should occur).
10.) Power down the machine.
11.) Remove the BMM card.
12.) Restart the terminal emulator program on the correct COM port at a baud rate of 9600.
13.) Power up the machine
14.) The diagnostic leds on the satellite should now indicate that the main firmware is running. This is indicated by the heartbeat led flashing On/Off at a 1 second rate, and the Interrupt led being lit at about 30% brightness.
15.) Type **Creo** on the terminal program. (If you make a mistake here, wait 6 seconds and try again).
16.) The main firmware should print its sign-on message.
17.) Type **fw dir** to display the firmware versions. They should be the new upgraded versions for the BBR and BOOT code.
18.) Power down the machine, remove serial diagnostic cable, replace metal shield.