

eSys Flasher
User's Manual

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1.0 Getting Started

When the flasher application is begun, the user will be prompted to select which hardware connection is being used. Currently eSys Flasher supports P&E Parallel Port Wiggler, P&E USB Wiggler, and MaCraigor Parallel Port Wiggler. If using the Macraigor PP Wiggler to connect to the board with the eSys Flasher, the user must first ensure that the parallel port of the PC used is in EPP mode and the port address is set to 0x378 – 0x37F. If using the P&E PP Wiggler, the mode of the parallel port should be set to either SPP, Normal, Compatible, Standard, Output-Only, or Uni-Directional. These settings can be modified in the system's BIOS. When the application is started, the processor will be reset, debug mode will be entered, and the memory management unit (MMU) will be configured appropriately.

2.0 Overview

The eSys Flasher allows the user to erase and program the internal flash on eSys family products. The eSys Flasher also has the capability to view memory, verify a program in flash, fill a memory region, and upload data from the flash to a binary image file.



Figure 2-1. eSys Flasher Main Window

3.0 Reset CPU

The reset CPU button will reset the processor, enter debug mode, and setup the memory management unit (MMU) appropriately. This button must be clicked before programming and erasing if a reset to the processor (produced by anything other than clicking this button) has occurred.

4.0 Program Flash Window

The program flash feature allows the user to program both s-record files and binary image files. In the case of binary image files, a starting address must be specified. The program feature will erase necessary blocks before programming unless the user has already erased the blocks using the erase feature. See section 4.0, “Erase Flash Window.” The user also has the option to verify after programming by checking the box labeled “Verify after program.”



Figure 4-1. Program Flash Window

5.0 Erase Flash Window

The erase flash feature allows the user to erase all of the flash or a specified range in the flash. If the user supplies a range for erase, then the tool will erase all blocks in that range. The end address is inclusive.

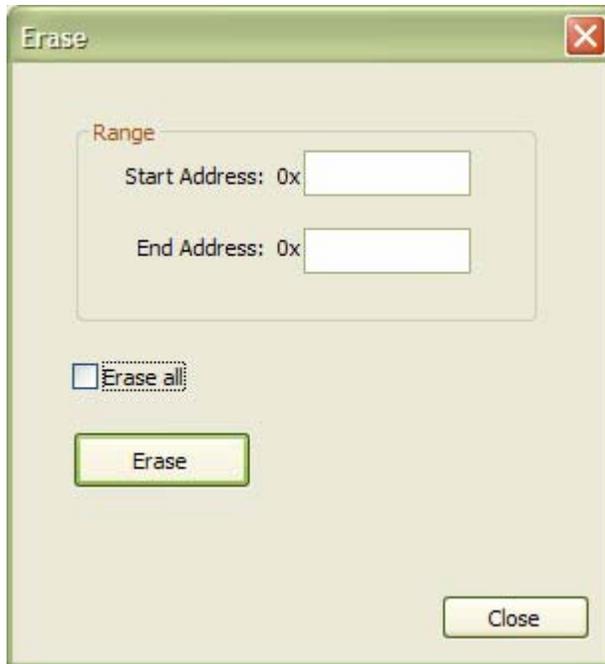


Figure 5-1. Erase Flash Window

6.0 Fill Window

The fill feature allows the user to fill a memory region with a certain value. The user must supply the address range and the 32-bit fill value. The end address is inclusive and the fill value is expected to be a 32-bit value.

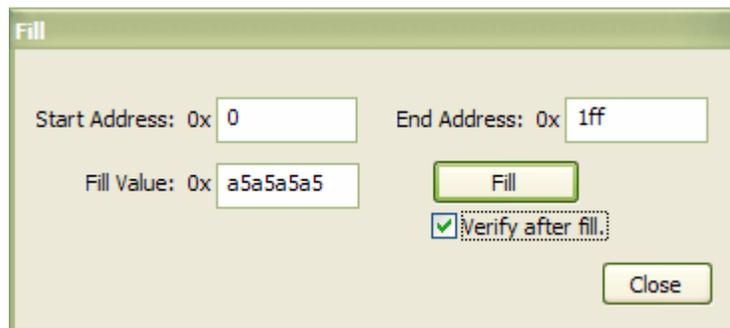


Figure 6-1. Fill Window

7.0 Upload Flash Window

The upload flash feature allows the user to copy a specified memory region to a binary image file. The binary image file could later be reprogrammed using the program feature. The user must supply the address range. The end address is inclusive.



Figure 7-1. Upload Flash Window

8.0 Verify Flash Window

The verify flash feature allows the user to verify that a certain s-record or binary file has been programmed correctly. The user also has the option to choose to verify flash in the Program Flash Window after programming is complete.

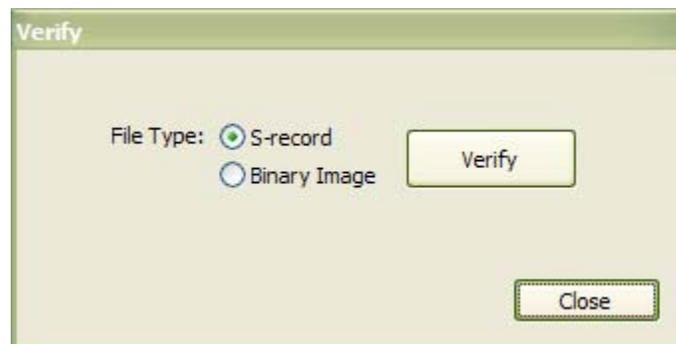


Figure 8-1. Verify Flash Window

9.0 Blank Check Window

The blank check feature allows the user to check if a certain memory region of the flash is erased or not. The user must specify the start address and the size of the region to check. The start address and size must both be on an 8-byte boundary. The blank check function will check the range from start address to start address + size – 1. That is, the end address specified by size is non-inclusive. The user also has the option of selecting the “Blank Check All” checkbox. The tool will then check that the entire flash is blank.

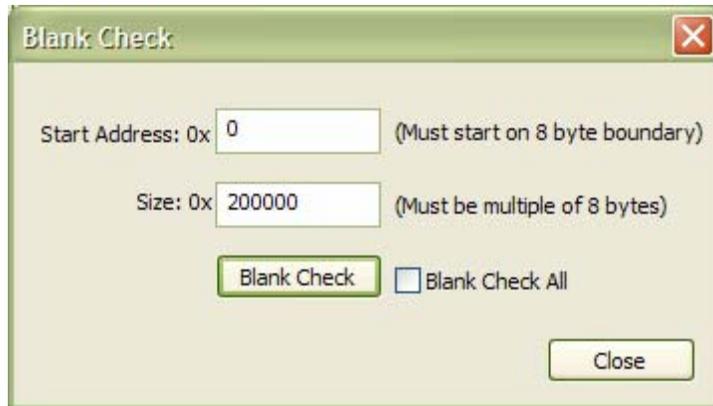


Figure 9-1. Blank Check Window

10.0 Memory Window

The memory window allows the user to view memory in word, halfword, or byte mode. The user must supply the first address to be displayed in the window.

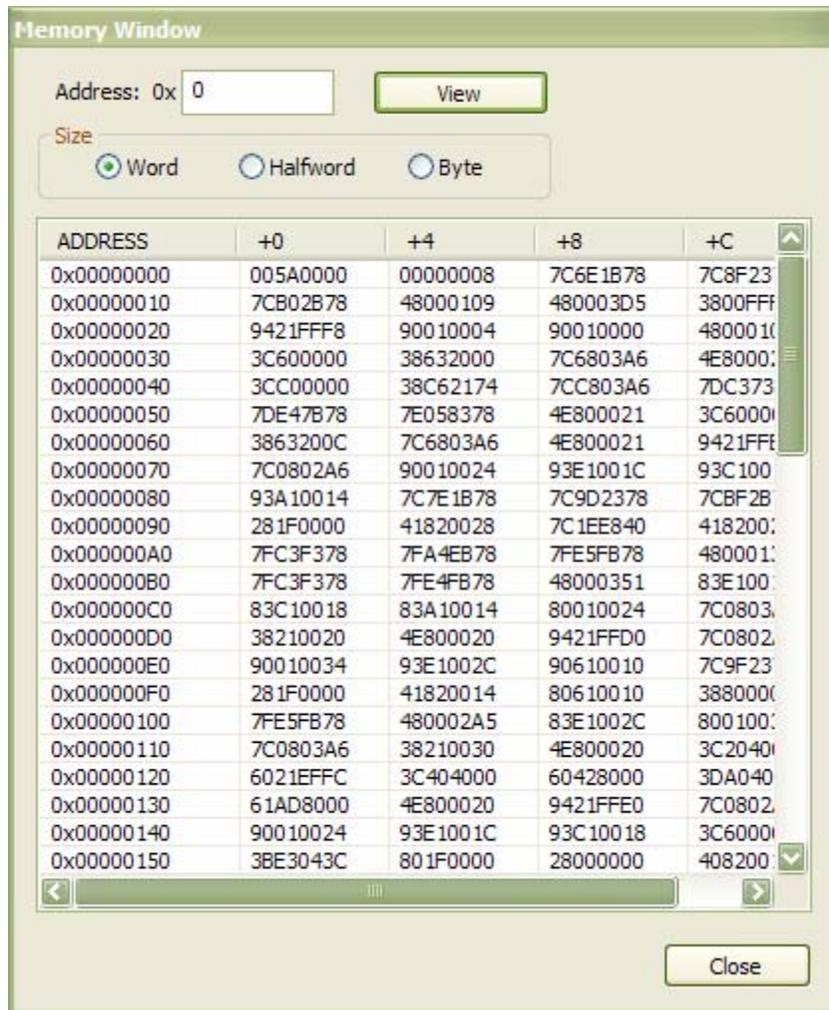


Figure 10-1. Memory Window