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Report for Reverse Array, Version 1 (ReverseArray.asm)

The Reverse Array program uses a loop with indirect addressing to reverse the elements of an integer array in place. The program uses SIZEOF, TYPE, and LENGTHOF to try to remain flexible for future changes. The program uses DUMPMEM to display both the original array and the reversed array. The array is of type BYTE is initialized to hold elements 1-9. The program first displays the array using Dumpmem showing the original order to the user. Next the loop counter in register ECX is initialized to half the length of the array. ESI will hold the address of the front of the array and EDI will hold the address of the end of the array prior to starting the loop. Next the program will loop moving the source to temp, destination to source, then temp to destination. At the end of the loop the reverse array program will increment ESI by the type of the array and decrement EDI by the type of the array. After the loop ends the program displays the array again showing the reversed order to the user.

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