Hitachi America, Ltd.

Application Engineering
TechNotes

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H8/300 CPU DIVXU Instruction

The H8/300 CPU provides an instruction to perform a 16/8 divide operation to yield an 8-bit result. The H8/300 Programming Manual incorrectly describes the flag results during the execution of this instruction. The text of the instruction states the following:

> "Valid results are not assured if division by zero is attempted or an overflow occurs. Division by zero is indicated in the Zero flag. Overflow can be avoided by the coding shown on the next page."

This is in error. While it is true that valid results cannot be assured if the division by zero is attempted or an overflow should occur, it is incorrect in stating that the Zero flag will indicate that a divide by zero operation was attempted. The text should read:

> "Valid results (remainder, quotient, and flag operation) are not assured if division by zero is attempted or an overflow occurs. Overflow can be avoided by the coding shown on the next page."

The text for the flag description currently states:

> Z: Set to "1" if the divisor is zero; otherwise cleared to "0."

This text should read:

> Z: Unpredictable if the divisor is zero; otherwise cleared to "0."