

Notes for 11/4/09

Bitshifting a 32-bit int by 32 or more is undefined in C.

From ISO-C99 standard:

“If the value of the right operand is negative or is greater than or equal to the width of the promoted left operand, the behavior is undefined.”

MIPS:

$1234 \gg 34 == 1234 \gg (34 \% 32) == 1234 \gg (34 \& 0x1f)$ $1234 \gg 2$

Most hardware, for shifting 32-bit words, will just look at the lowest five bits and ignore the rest.

The Java Virtual Machine behaves the same way to remain consistent with the way that most hardware behaves.