Homework 1

Do homework problems 2.64, 2.72, 2.73, and 2.82 from Bryant & O'Hallaron 3rd edition. If using 2nd edition, do problem 2.81 instead of 2.82.

In addition, redo problem 2.73, this time using a call to the <u>builtin_add_overflow</u> function available in GCC 5 and later; the third argument of the call should consist of the unary address-of operator '&' applied to a local variable. In other respects your function should continue to follow the bit-level integer coding rules.

Submit your homework answers as a gzipped tarball containing your answers to each problem, in the files hw1/2.64.c, hw1/2.72.txt, hw1/2.73.c, hw1/2.82.txt, and hw1/2.73-redo.c respectively. The .txt files should be plain ASCII text files with lines terminated by LF. The .c files should compile cleanly with shell commands like this:

gcc -O2 -Wall -Wextra -S hw1/2.73.c

As we will grade your submission with the latest version of GCC installed in /usr/ local/cs/bin/ on the newer SEASnet GNU/Linux servers, it would be wise to check your work on that platform. On this platform the shell command 'gcc --version' should output 'gcc (GCC) 6.2.0' or later.

To create your tarball, use the shell command:

tar -cf - hw1/2.64.c hw1/2.72.txt hw1/2.73.c hw1/2.82.txt hw1/2.73-redo.c | gzip -9 >hw1.tar.gz

© 2016 <u>Paul Eggert</u>. See <u>copying rules</u>. \$Id: hw1.html,v 1.1 2016/09/20 17:30:13 eggert Exp \$