

## COMP 40 Assignment: Image-Compression Challenge

Due Thursday, October 20 at 11:59 PM.

For the image-compression challenge, you are to meet two criteria:

1. Edit your `compile` script to produce an executable binary named `40image-6` instead of `40image`.
2. Edit your existing code to use the following codeword format for coefficients  $a$ ,  $b$ ,  $c$ ,  $d$ ,  $\overline{P_B}$ , and  $\overline{P_R}$ :

Value	Type	Width	LSB
$a$	Unsigned scaled integer	6 bits	26
$b$	Signed scaled integer	6 bits	20
$c$	Signed scaled integer	6 bits	14
$d$	Signed scaled integer	6 bits	8
$index(\overline{P_B})$	Unsigned index	4 bits	4
$index(\overline{P_R})$	Unsigned index	4 bits	0

Surprisingly, this format produces slightly better images than the 9/5/5/5 format used in the original assignment.

Please

- Avoid changing interfaces unless necessary.
- Change as little code as possible.
- *Do not rename any files.*
- *Do not create any new files.*

If your compressor does not work correctly, that's OK: your job is simply to get the behavior you already have (whatever it is) using the new format.

Submit your work using `submit40-arith-challenge`.