# John Carmack ✓ @ID\_AA\_Carmack

Everyone knows that when you have similar code repeated several times that you should consolidate into a loop or function, but changing discrete variables into arrays and adding loops can have a small readability cost, so sometimes it can feel like a debatable choice for something small just repeated two or three times.

Usually, optimizing for readability is positive, but a requirement to keep two separate things aligned through future changes is an "invisible constraint" that is quite likely to cause problems eventually.

Many years ago, I would casually copy-paste-paste-paste-modify 4D vector statements, but now I almost never even do two related statements like that.

The hazard is when you combine two things that are close, but not exactly the same, and the strain induces complexity.

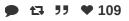
Apr 13, 2023 · 10:02 PM UTC

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# John Carmack ✓ @ID\_AA\_Carmack

Sorting out some similar code for "fovea" and "peripheral" reminded me that I had made a mistake here.





# FM @ftuuky

Replying to **@ID\_AA\_Carmack** "Don't Repeat Yourself" versus "Repeat Once or Twice"

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# John Carmack ✓ @ID\_AA\_Carmack

But when things aren't exactly the same, do it three times before trying to infer an abstraction.

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# more replies



John Loeber 🎢 @johnloeber Replying to @ID\_AA\_Carmack 1h

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A lot of junior engineers are very very aggressive about DRY when in practice, a lot of code is similar enough to tempt to abstract, but too different to create a

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#### John Carmack ✓ @ID\_AA\_Carmack

It is often still a good trade if an abstraction may induce some extra work where not strictly necessary, but a bad trade when you start introducing conditional behavior in your abstraction.

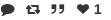
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# more replies



Anthony Figueroa @anthfb Replying to @ID\_AA\_Carmack

abstract semantics must be the judge to define if two things are the "same"





#### Olcan @olcan

Replying to @ID\_AA\_Carmack

agree, though readability can be everything in early/experimental code, and it can actually be a good exercise to go through repetitive fixes and be forced to reconsider for future changes -- i think there is often a bias to refactor too early that is useful to acknowledge





Benjamin De Kraker @BenjaminDEKR Replying to @ID\_AA\_Carmack

> Take this programming tweet from legend John Carmack and translate it to extremely basic caveman grunt language.

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< 9/9 >
```

Ø

Make code not repeat. Put repeat code in loop or function. But loops and arrays can be hard to read. Readability good, but need to keep things aligned can be problem later. Me do copy-paste before, but now me no do. Bad when things almost same but not really, it make things complex.

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#### MrHumpty\_MC @MrHumpty\_ Replying to @ID AA Carmack

We have this issue with controls in our UI. Used in many different places and in a couple of them small variations. Makes testing new "features" added to the control for a new requirement a bit of slog.

We know it should be done the way we're doing it. But it can be painful sometimes.



# more replies



Marcos Pereira @voxelbased Replying to @ID\_AA\_Carmack

It's all about sources of truth! If something changes, make sure there's only one place to update



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