

FreeRTOS Architecture Part 1

Name

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Memory Managment

Memory Hierarchy: A Light-Hearted Tour

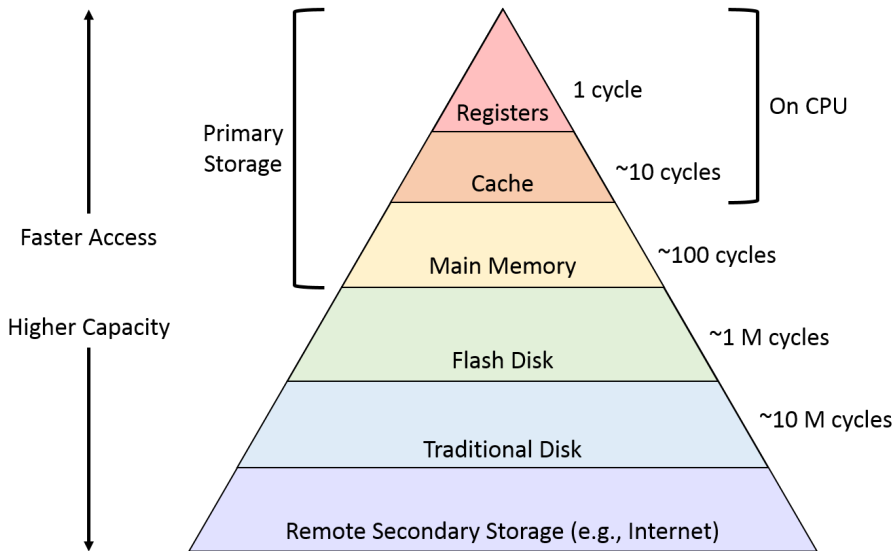
- **Registers:** The speed-demons of memory. Too fast to care, but you really should!
- **Cache:** The backseat driver of computing. It makes decisions you didn't ask for, often with surprising results.

Friendly Reminder

Regularly clearing your cache: not just good practice, it's like digital detox for your devices!

- **RAM (Random Access Memory):** The workaholic of memory. When it runs out, things go south quickly—plan wisely!
- **Storage:** The elephant's graveyard. Where all your code and files go to rest. Yes, your code lives somewhere physical!

Memory Hierarchy



Defensive Programmig

Defensive Programmig. Expect the unexpected

Defensive programming is a bit like always wearing a full suit of armor. It's about preparing for the worst while hoping for the best, much like someone living in a zombie apocalypse with a bunker full of canned goods. In this approach, every function call is a potential trick, every user input a Trojan horse, and paranoia isn't just recommended, it's required!



Common errors in variable allocation

What does static mean?

Stack Memory

Heap Memory

Pointers

Callbacks