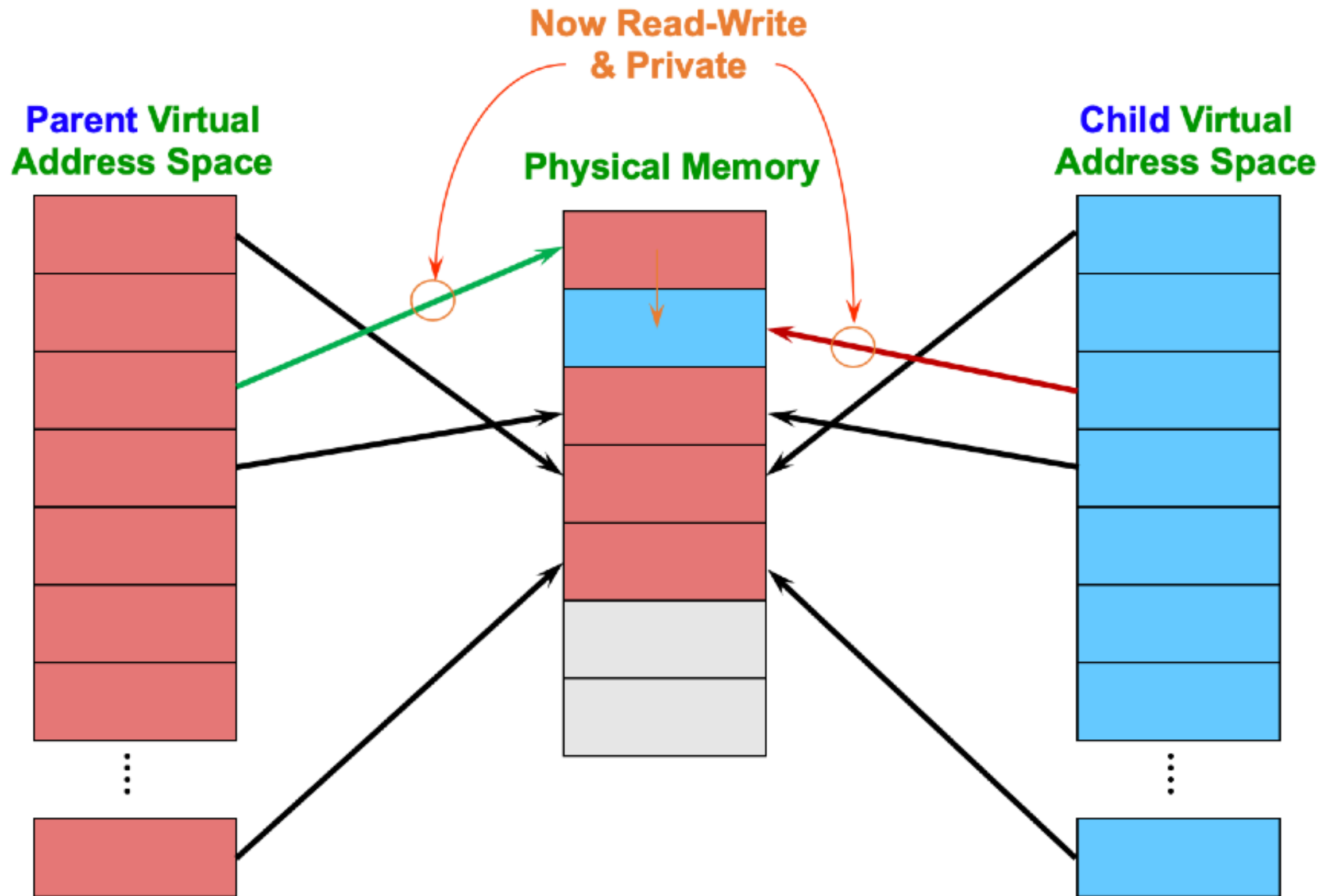


Example - Write step



Mapped Files

Mapped files enable processes to do file I/O using loads and stores
Instead of "open, read into buffer, operate on buffer, ..."

➔ Bind a file to a virtual memory region (see Unix `mmap`)

- PTEs map virtual addresses to physical frames holding file data
- Virtual address base + N refers to offset N in file

Initially, all pages mapped to file are invalid (similar to a swapped page)

- OS reads a page from file when invalid page is accessed
- OS writes a page to file when evicted, or region unmapped
- If page is not dirty (has not been written to), no write needed (another use of the dirty bit in PTE)