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Page Table Entry

As you have hopefully deduced from the previous sections, the **page table entry (PTE)** is the key piece of information in virtual addressing because it holds the physical memory location of the virtual page. Perhaps even more crucially, it records whether the entry is valid or not. When valid (i.e. the valid bit is set), the page is actually loaded in physical memory. Otherwise (i.e. when invalid) there are one of several possible problems interfering with the addressing process, the least of which will require the page to be reloaded from the page file.

The PTE also stores some info about page security and usage info, but that's another story.