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Chapter 1: A Tour of Computer System

1.3 It Pays to Understand How Compilation Systems Work

> 1   本节主要强调了理解编译系统工作原理的重要性。

Why programmers need to understand how compilation systems work:

- Optimizing program performance.
  - 'switch' and 'if-else'
  - overhead of a function call
  - 'while' and 'for' loop
  - pointer references and array indexes
- Understanding link-time errors.
  - 'it cannot resolve a reference'
  - Static and global variable
  - 2 global variables with the same name
  - static and dynamic library
- Avoiding security holes.
  - buffer overflow vulnerabilities.