7.7 Macro Routines and Inline Routines **185**

The bottom line on inlining for performance reasons is the same as the bottom line on any other coding technique that’s motivated by performance: profile the code and measure the improvement. If the anticipated performance gain doesn’t justify the bother of profiling the code to verify the improvement, it doesn’t justify the erosion in code quality either.

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**Cross-Reference** This is a checklist of considerations about the quality of the rou- tine. For a list of the steps used to build a routine, see the checklist “The Pseudo- code Programming Process” in Chapter 9, page 215.

**CHECKLIST: High-Quality Routines**

# Big-Picture Issues

* Is the reason for creating the routine sufficient?
* Have all parts of the routine that would benefit from being put into rou- tines of their own been put into routines of their own?
* Is the routine’s name a strong, clear verb-plus-object name for a procedure or a description of the return value for a function?
* Does the routine’s name describe everything the routine does?
* Have you established naming conventions for common operations?
* Does the routine have strong, functional cohesion—doing one and only one thing and doing it well?
* Do the routines have loose coupling—are the routine’s connections to other routines small, intimate, visible, and flexible?
* Is the length of the routine determined naturally by its function and logic, rather than by an artificial coding standard?

# Parameter-Passing Issues

* Does the routine’s parameter list, taken as a whole, present a consistent

interface abstraction?

* Are the routine’s parameters in a sensible order, including matching the order of parameters in similar routines?
* Are interface assumptions documented?
* Does the routine have seven or fewer parameters?
* Is each input parameter used?
* Is each output parameter used?
* Does the routine avoid using input parameters as working variables?
* If the routine is a function, does it return a valid value under all possible circumstances?