

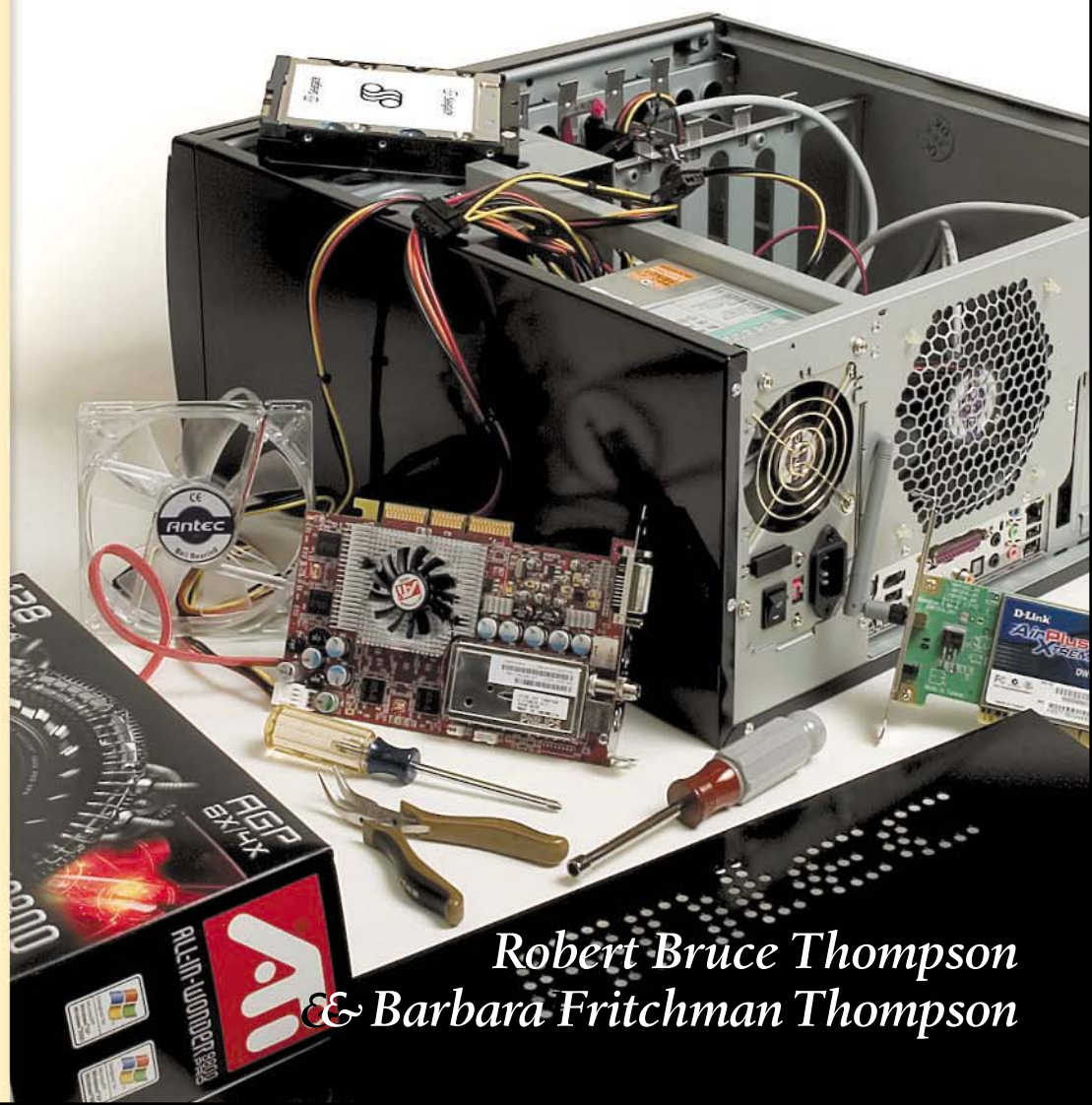
Learn how to:

- *Choose best-quality hardware for the perfect PC*
- *Optimize your computer with the most compatible components*
- *Assemble, test & configure a PC*
- *Build a reliable & affordable general-purpose PC*
- *Put together a high-performance server for your home or office*
- *Balance size & power as you build a small form factor PC*
- *Replace your VCR, TiVo, DVD & CD player with the perfect home-theater*
- *Design a customized kick-ass LAN party PC*

and more...

O'REILLY®

BUILDING *the* **PERFECT PC**



*Robert Bruce Thompson
& Barbara Fritchman Thompson*

Foreword

I presume you're reading this because you've either just bought this book, or you're thinking of buying it. So let's get that out the way now. Should you buy this book? Or, having bought it, should you be happy you did? The answer to both questions is yes. If the subject of building your own computer interests you—and why in the world are you reading this if it doesn't?—then you need this book. You won't find anything else like it.

That out of the way, we can look at the broader question of whether you should build your own computers.

As I look around Chaos Manor (www.jerrypournelle.com), I see that I have over 20 computers, all networked, and I built nearly every one of them myself. The exceptions are Princess, an ancient Compaq desktop professional workstation running dual Pentium Pro 200 MHz CPUs; a Mac; a TabletPC; and another laptop. No one in his right mind builds his own laptop or Tablet. I keep Princess because I've had her for a decade, and she hasn't been shut down in more than a year, and I haven't the heart to scrap her. Besides, she's still useful for doing long web searches. Until fairly recently I had a Compaq professional workstation (dual 750 MHz Pentium III) as my communications system, but I retired it a few months ago in favor of a new 3 GHz built here, and since then every server and workstation added to the Chaos Manor network was built here. Clearly I must like building systems and using them.

It wasn't always this way. Until a few years ago I had at least as many brand-name systems as home-built “white boxes.” Then came the consumerization of the PC industry. Manufacturers were forced into cost reduction after cost reduction. Some of those cost reductions were not wise. Some were disasters. Worse, component makers were themselves competing on cost. It became more and more difficult for computer manufacturers to build a quality line of PCs that they could sell at any realistic price.

It is still possible to buy quality computers, but you'll pay dearly for them. And sometimes, even after having paid an arm and a leg, you still won't be sure of the quality of your system. There are still big companies with mission-critical tasks who are well advised to buy the very best machines from top-of-the-line companies. But most users and small businesses should consider building their own, or having them built to specs by a trustworthy local shop. (And a book like this is indispensable when it comes to sorting through all the possible specifications.)

In general, there are two reasons why you build your own systems.

First is if you want the *highest possible performance*, using only the latest and greatest components. When new and better components come out, it takes a while for commercial system builders to change over. And the first ones to come out with the latest in high-performance command premium prices. If you're interested in building a really screaming machine, you need this book because building that kind of system is tricky. Components like power supplies, cases, and fans are important, and information about *why* they are important is often hard to come by. You'll find all the information you need in this book.

The other reason for building your own system is to get the *best performance and quality for your money*, and to *customize your high-performance system for your specific needs*. You probably don't need the very best performance available, and often you can get more than good-enough systems at dramatically lower prices. These are known as "sweet spot" systems, and once again, if that's your goal, you need this book because that too can be tricky. Sometimes saving money isn't a good idea at all. You can fudge on some components, but you're better off paying a premium for others. Bob and Barbara Thompson offer great advice on which is which.

So if you're thinking of building your own system, you need this book to give you some notion of how difficult it's likely to be and to help you decide if it's a good idea. And if you're determined to build a PC, you need this book because most of us who build PCs have picked up a number of techniques and tricks over the years, and the Thompsons know nearly all of them. Learn from our mistakes. It's a lot easier than paying for your own.

—Jerry Pournelle
Chaos Manor
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