Let's Make Some Decisions

ongratulations on taking the first step to building the ultimate gaming PC! After reading this book and following the steps, your PC will be able to run the latest games at peak performance, letting you completely experience the world as the game creators intended.

You may be asking yourself, "Why would I build this PC myself when I can just head to the store and buy one?" That is an excellent question. Let's take a look at why building your own PC is a much better way to go.

Buying the Ultimate Gaming PC: Why Your Wallet Will Never Forgive You

You can take the easy route and skip this whole "build your own PC" idea. Just whip out that credit card and buy the best PC that you can find. There are many places you can do this. You can get on the Internet, go to one of those configure-it-yourself computer Websites, and try to piece one together. You can also check out some of those specialty gaming computer Websites to see what they have to offer. You can also skip this whole Internet thing, drive over to a local computer store, pick one up, and carry it home.

It's Not Called the Generic Gaming PC, You Know

Take a look at what happens if you try to go to one of those general computer Websites and configure one for yourself. Of course, you have to try and find the best desktop model for gaming out of the 10 or 15 generic variations that they offer. All of these choices look a little different — some have big CRT monitors; others have sleek, thin flat panels. Some have big and tall cases; others are much smaller. And each and every one is labeled for some specific purpose, such as "Great for Home Entertainment," or "Cutting Edge Technology." In the best case scenario, one of these PC's is labeled "Ultimate Gaming PC" or such. More than likely, you'll be left trying to figure out whether "Cutting Edge Technology" or "Home Entertainment" is better for gaming.

chapter

in this chapter

- ☑ Why build a PC
- ☑ Budget
- ☑ Shopping for Computer Components
- ☑ Researching Computer Components

Assuming that you managed to pick a base desktop model to build on, I'm sure that you'll be pleasantly surprised to find a price tag that is several hundred dollars less that you were expecting to spend, probably around \$1,300 or less. This is great! You'll be able to grab your ultimate gaming PC for next to nothing! But first, check the configuration to see what parts are included.

Parts That Are Less Than Ultimate, Too

The first thing that you might notice is that the fastest possible processor is not included in this PC. Because this computer supposed to be the "ultimate," you need to add in what a processor will cost. Time to scroll down the page and find out how much memory is included. That won't likely be enough, either, so you have to add more memory. The hard drive may not be big enough for your needs, so add in the cost of a larger hard drive. By the time you look though the entire configuration and add all of the things you need, that \$1,300 price tag is long gone. In all likelihood, the price is now probably hovering around \$2,000.

Because you expected this thing to cost a pretty penny, you're not too concerned about the price. After all, you're getting some quality parts, right? The processor is a brand that you recognize, so that's good. And the memory...wait a minute. Exactly what brand of memory are you putting in this computer? And what brand of hard drive? A quick review of the entire list reveals that very few of the key components of the PC actually have a brand name listed. Are these the parts that you really want inside your ultimate gaming PC?

Warranties: We're Right Behind You...Way Behind You

Well, for the moment, try and put this whole "brand of parts" issue in the back of your mind. After all, computer parts are all the same, right? If something breaks, you can just send it back under warranty, right? Just in case, you might want to check that warranty policy.

Somewhere on that computer configuration page, there is likely a description of the warranty that comes with the computer. It's possible that you didn't notice it the first time; it's something that is often overlooked. After you do find it, you may be dismayed to see how long that warranty actually lasts. Most warranties only last for one year, with some basic warranties as short at 90 days. There are probably some extended warranty options available to you, but each one has a price tag associated with it. In the end, a four-year extended warranty can cost you an additional \$200.

Freebies: Do You Really Want This Stuff?

Even though some of the pitfalls are getting harder to ignore, you're going to get this computer anyway. After all, this is much easier than building it yourself, right? Besides, the next part of this virtual shopping trip is the most fun: free stuff. No matter when you decide to buy this PC, something will be free. There may be a component upgrade, such as upgrade your 32x CD drive to a 42x drive, or some sort of free peripheral, such as a printer or scanner. Even though you're buying the site's "Gaming PC," the freebie is almost never a free gaming peripheral, like a joystick or gamepad.

The most important freebie is one that you never know if you're going to get: free shipping. If you manage to be on the Website the day free shipping isn't offered, be prepared to add another \$100 to the price of this computer. When this PC is shipped to you, you might find even more

freebies — free software. In fact, the hard drive and desktop are often littered with it: two or three different types of music software, maybe some extra "Internet protection" software, and some software for a free Internet connection. Of course, because you bought the PC online, you probably don't need a free Internet connection, but the software is free and included.

A Fine-Tuned Machine?

Now that you have your ultimate gaming PC, you can try to play some games. Unfortunately, all of that "free" software could be stealing valuable system power from your games because they have been set up to run in the background every time you turn on your PC. On top of that, there are a lot of other settings on your PC that can boost the performance of your games; however, the machine didn't arrive with those configurations, so you have to find and change these settings yourself. But once you do, you'll finally have your \$2,500 ultimately generic gaming PC—with free printer!

In the end, this Website is probably a great place to get a solid, multipurpose PC. However, if you really want the ultimate gaming PC, you have to look elsewhere.

The Ultimately Expensive Gaming PC

The generic PC Website wasn't really the place to get the PC you wanted. The generic PC site offered something for everybody, but it didn't seem to understand what components go into an ultimate gaming PC. One of those specialized gaming PC Websites should be a better place to look.

High Tech, High Price

After the Web page loads, you can immediately tell that you came to the right place. First of all, you don't have to find your PC among hundreds of different home, business, and server models. Instead, you can narrow your focus to a great gaming PC rather quickly.

After you've chosen your model, you can head over to the configuration page. The difference on this site is immediately noticeable when compared to the generic PC site. There are many different choices for each part, and the brand of each component is clearly noted. This is great! You can run through all of these parts, pick the best ones available, and you'll have your ultimate gaming PC. Unfortunately, this is where the shortfalls of this method begin to show.

After adding all of the best components to your PC, you notice the price tag. \$5,500! Wow! You could have had two of those generic gaming PCs for that price. And you haven't even chosen a monitor yet! Okay, you figure you'll worry about the price later. Better to check into how the computer will be configured when it arrives.

Luckily, all of this expensive technology can be properly tweaked for gaming before it even arrives at the door. This is a significant advantage to the generic PC site. Of course, that costs another \$25 to \$50. Checking the warranty on the parts and components reveals that they are just as short as that generic PC site. To protect your purchase a year or two longer will cost another \$300. Forget the warranty; you may need an insurance policy for this \$6,000 ultimately expensive gaming PC.

This seemed like a good idea at the time, but you don't think this Internet shopping experience is working out. Now it's time to pile into the car and drive to your local electronics store.

The One-Size Fits All Gaming PC

Now that you're at the local electronics superstore, you feel much better. First of all, there are many PCs lined up for you to look at. You can see all of them in action, check the images on the monitor, and compare them side by side.

Because you've been worried about the warranty policies online, you are comforted by the fact that the superstore has their own warranty policy. If you're not satisfied in a few days, you can bring it back for a full refund. Of course, if that happens, you'll be back at square one, looking for the ultimate gaming PC. And you will most likely have to pay a restocking fee for returning the machine. But you can worry about that later. Let's see what kind of computer you can get.

After you begin to look closely at these PCs, you notice that they are all similar. Some are a little better than others, but not by much. Very few, if any, are offering the latest technology that you saw on that gaming PC Website. And these PCs all come with peripherals that you already have, such as printers, and items you don't really want, such as digital cameras. You can't customize these machines, either; what's in the box is what you get. In the end, these one-size-fits-all gaming PCs don't really fit your needs any better than the ones you saw on the Internet.

Building the Ultimate Gaming PC

Just because you couldn't find the ultimate gaming PC available for purchase, or available at a reasonable price, doesn't mean that building it yourself is a much better choice. After all, these other companies put computers together all day long. How could you possibly do a better job than they do? Believe it or not, you can do a much better job. The following sections show the reasons why you want to build your own PC instead of buying it already assembled.

Fully Customizable

When you build your own PC, it can be completely customized to reflect your needs. You can pick any brand of processor, not just the brand that is affiliated with a particular Website or computer manufacturer. If a particular feature, such as high-quality sound, is important to you, the very best sound card can find its way into your PC. You are not limited to the sound card offered by a particular PC manufacturer. This theory applies to every computer component that you want to use; you are in complete control.

Pay for What You Want

When you build your own PC, you pay only for what you want. You don't have to buy that new printer just because it's part of the package. Your computer does not come with preinstalled software that you do not want or need. Just like dictating what parts you do use, you have the power to leave out the components, peripherals, and software you don't need.

Save Money

When you build your own ultimate gaming PC, you can save significant amounts of money compared to a fully assembled PC. You can buy each part from the store or Website that offers the lowest price. In addition, you don't have to pay for the labor that is required to assemble and package your PC for shipment.

Also, when you buy your fully assembled PC, you are often charged sales tax at the time of sale. If you buy individual parts from Websites whose warehouses are not located in your state, you may not be charged sales tax at the time of sale.

A Better Protected Investment

When you buy individual parts for your PC, you will be pleasantly surprised by the warranties that are offered for each product. It's nearly impossible to find a retail product that has a warranty less than one year in duration. In fact, most companies cover their products for at least three years, with many now offering lifetime warranties! Compare this to the 90-day and one-year warranties offered by most Web-based computer sellers. To have your pre-built PC covered for as long as the one that you assemble yourself, you could be forced to pay an additional \$200 or more!

Gain Knowledge

The greatest thing you gain when you build your own PC is not something that can be bought in a store. Building your own PC gives you a tremendous amount of knowledge about how a PC works. You learn about all of the parts that comprise your PC and how they work together. You learn about your operating system and drivers, and how they affect your system performance. And you use what you learn to keep your system in peak operating condition. This knowledge comes in handy long after your PC has been assembled.

This knowledge also allows you to upgrade to the latest technology as it is released. When that next great video card comes out, you know exactly what it takes to uninstall the card that you currently have and pop the new one in without a problem. Knowing your PC inside and out lets you get the most out of it.

Your Budget: What You Get for Your Money

Hopefully, all of the benefits that we noted have convinced you to assemble your own PC. If so, it is important to understand how much money you will need to complete this project. Knowing what kind of computer you are going to get based on what you spend is also vital. Here are some general guidelines for understanding your budget.

\$1,000 — Basic PC

A budget of \$1,000 is not going to build a very good gaming PC. If you shop very carefully, you may be able to find a few quality parts; however, you will wind up cutting too many corners

to build a solid gaming PC that remains up-to-date for any extended period of time. You'll probably run out of storage before long, your mid-range video card will probably need to be upgraded before long, and there may not be enough money left over to buy the latest games or computer accessories. At best, the computer you build with this budget will be decent; at worst, it will be a disappointment.

If you only have \$1000 to spend on your PC, you may be better off buying a PC from a generic PC Website. Because these companies build and sell a great number of these budget PCs, they can buy low- and mid-level components in bulk, saving more money than you are able to by purchasing them yourself.

\$2,000 — Solid Gaming PC

A budget of \$2,000 ensures that you can run every one of today's top games as well as those that are released in the near future. Not every game will run at its maximum settings, but the average gamer should be happy with this PC.

Because the quantity of high-level PCs that are sold by major manufacturers is significantly less than basic PCs, they do not realize as much of a savings on these components. In addition, the prices of these premium components are higher, which adds to the PC manufacturer's overall cost. At this price level, you get more value for your money by buying parts yourself and building your own PC.

\$3,000 and Up — The Ultimate Gaming PC

A budget of \$3,000 lets you buy all of the components you need for the ultimate gaming PC. You can have both the latest processor and graphics card, along with more than enough memory and storage to get the job done. You also can get a great monitor for viewing all of the latest graphics that your games throw at you. A full set of gaming accessories round out the total package, truly making this the ultimate gaming PC.

How to Set Your Budget

The general guidelines mentioned in the previous sections shouldn't be the only things that dictate how much money to spend on your new PC. Here are a few points to keep in mind as you set your budget.

Honestly Evaluate Your Cash on Hand

If you replaced all of the wallpaper in your home with sheets of dollar bills, you can skip this section and move on to the next chapter. For the rest of us, it is important to understand how much we *should* spend on this PC. First of all, the point of building the ultimate gaming PC is to play the greatest games. If there's no money left after assembling your PC to buy those games, you've done something wrong. Leave some cash on hand to have some fun after you've purchased all of your parts.

Assess How Long Your Computer Will Be "Ultimate"

If you're trying to build the ultimate gaming PC, you will wind up spending a lot of money to do it. However, if you break the bank today, it is important to understand that your computer won't be the best forever. Every year, new technology is allowing manufacturers to improve processors, video cards, and every other computer component that you can think of. Because of this, today's best computer will be bumped into second place in one to two years. You'll still be able to run every game out there, but you might find that you have to lower a setting or two to get the best overall performance. In two or three years, your top-of-the-line computer will become more mainstream, just slightly above the average PC. As time goes on, you'll begin to realize that your computer is becoming obsolete.

Because you're building your own PC, you have the unique opportunity to upgrade individual parts as better ones come out. And because you installed the original components, it shouldn't be much of a problem to repeat the task as technology improves. If you spend every last dime you own to build it in the first place, however, or if by this time next year you can't pay off that credit card you used to purchase the components, you won't be able to afford the newest technology as it comes out. Keep this in mind as you set your budget.

How to Save Money on Your Ultimate Gaming PC

Now that you set your budget, are you falling just short of being able to afford the parts you want? Luckily, there are many ways to save a few bucks along the way. The following are some ideas.

Harvest Parts from Old PCs

As much as processor and video card technology has come a long way in recent years, certain computer parts haven't evolved since the last decade began. Floppy drives are useful to diagnose broken PCs and assist during OS installations, but they still work in the same way as they did 10 years ago. The difference between a 32x CD-ROM drive and a 48x CD-ROM drive is negligible at best. Keyboards have had the same layout and keys since the 1970s.

Because these parts have undergone such little change, they are great items to salvage from older PCs. By grabbing these and throwing them into your new PC, you could save yourself \$50, \$100, or more. While that may not sound like much, every dollar helps when you're reaching for the next best processor or that top of the line video card that you've had your eye on.

Decide What's Most Important to You

Another way to save money, although slightly less desirable to some, is to determine what computer features are important to you and what areas you can cut. For example, if you can settle for a small symphony coming out of your PC instead of a full orchestra, you might be able to buy a mid-line sound card, or a slightly less-powerful speaker system. Focusing on the areas that are most important to you ensures that you will get the most satisfaction out of your new PC, rather than thinking about how much better your computer could have been.

Read Each Chapter for Part-Specific Savings

In each of the part selection chapters of this book, there is a section labeled "How to Save Money." Read through these sections carefully to prevent yourself from throwing money away. These sections also point out ways to save a few dollars with part selection and not compromise the overall quality of your PC.

Understanding Computer Parts

Purchasing all of the parts that are necessary to build a working PC can be a daunting task. Luckily, there are chapters in this book to help you search for each part. Before delving into the specifics, let's discuss the general quality of computer components.

Bargain Parts and Brands

The lowest level of computer parts is an unbranded component. Very often these are the lowest priced components available in a selection. If you are shopping in a brick-and-mortar store, these parts may even be labeled with the store's name, or with a particular logo or color that belongs to that store.

It is important to understand that the quality of these parts can vary widely. The performance of a single store brand component puts the reputation of all similarly branded items on the line. As such, a little more care may go into the manufacturing of these components when compared to other generic parts. Even so, the primary purpose of all generic parts is to be one of the lowest priced items on the shelf; you don't know if anything was sacrificed to achieve a particular low price point.

These parts are not recommended as primary components in an ultimate gaming PC. When we select parts, we choose them for reliability as well as performance. In general, these parts are good for emergency replacements of malfunctioning network cards or for meeting a sudden need for a dial-up modem. For important pieces of your PC, always use parts with solid reputations of quality.

Retail Parts

On the other end of the spectrum, you have retail parts. These components come complete in a box from the manufacturer. They contain not only the purchased item, but any accessories that may be required to install them, including screws, bolts, clips, cables, and similar pieces of hardware. These products also come with CDs that contain any drivers or other pieces of software that are necessary for them to run properly. Complete documentation and instructions are also found in the box.

Some retail parts include bonus items to make your purchase even more enjoyable. Sound and video cards may contain demo CDs, or even complete games that best demonstrate the part's unique capabilities. There may even be bonus pieces of hardware that compliment the original, adding value to the purchase.

Finally, the greatest item you get with a retail part isn't found in the box. Retail parts come with a complete warranty from the manufacturer. As mentioned earlier in this chapter, the majority of these warranties last for at least three years, if not for the lifetime of the product. Considering that you plan to spend significant amounts of money on these parts, you don't want to have to spend it a second time if the part fails within a year or two.

OEM Parts

Somewhere between bargain parts and retail parts lies the world of OEM (original equipment manufacture) parts. These components are the same brand name items that you find inside of a retail box; however, they do not come with the colorful packaging of retail parts. They most likely do not come with the necessary mounting screws and cables. Often, they do not come with any drivers; instead, you are directed to download any necessary software from the company's Website. Documentation is probably omitted, as well, and there are no bonus items.



The term *original equipment manufacture* is a misleading term for a company that has a special relationship with computer producers. OEMs buy computers in bulk and customize them for a particular application. They then sell the customized computer under their own name. The term is really a misnomer because OEMs are not the *original* manufacturers—they are the customizers.

The warranties that come with OEM parts can vary. It may match the warranty of the retail version exactly, or it may exist in a limited fashion or for a shorter duration. In some rare cases, there may not be any extended warranty at all.

These OEM parts represent a great opportunity for computer builders to save money, but they require some caution. OEM parts may simply be retail parts without documentation, or they could be "factory reconditioned" items. This means that the part previously failed inspection by the manufacturer, was repaired, tested, and passed a second inspection. The reliability of these products should match their retail counterparts, but it is ultimately up to you to decide if you are comfortable with them.

If you are considering OEM parts for your PC, read the entire product description very carefully. Check to see if the manufacturer's warranty still applies to the product. If the maker of the part is willing to stand behind it, you can feel comfortable in using it in your PC. Also, be sure that you have any necessary screws and cables to install it properly; otherwise, you could end up spending the money you saved to purchase the accessories that would have been included in the retail box.

Where to Buy Computer Parts

Now that you know a bit about part quality, you need to know where to look for the components. Similar to buying an entire PC, you can look on Internet sites specifically for computer parts, or you can look to one of your local retailers. Let's take a closer look at the places where you can shop for your parts.

Internet Shopping

There are hundreds of Websites selling computer parts. Some may specialize in a particular area, but most tend to be the Internet equivalent of a computer part superstore. Here are some things to be aware of as you shop these Websites.

Good Selection

Websites such as these often offer a superior selection when compared to their brick and mortar counterparts. Because they do not have to worry about stacking parts on shelves or advertising a particular brand over another, you should be able to find almost any part that you have read about or seen advertised.

Unfortunately, this wide selection can be both a benefit and a curse. If you shop at these sites without a particular product in mind, the selection can seem overwhelming. Something as simple as a network card can have 10 to 15 brands available for purchase. Avoid any confusion: research parts first before shopping at an Internet superstore.

Superior Prices

Product prices on the Internet are often less than your local store. Because these Websites do not need to advertise or maintain a storefront, they can usually offer the consumer a lower price than a physical store. Just don't use this as an excuse not to shop around. Prices can vary from site to site, and you could miss out on substantial savings by simply making a purchase from the first site you come across.

Virtual Selection

Unfortunately, products on a Website can't be physically examined. You are forced to rely on the product descriptions listed on each site. Some of the better sites offer several photos of each product, giving you some idea of what will be arriving at your doorstep in a few days.

Generally speaking, not being able to physically scrutinize an object should not be a problem for most components; however, if you are shopping for mice, keyboards, cases, or similar items, you may want to find them in a local store first and then shop and compare prices online. The comfort level of human interface devices such as these varies from person to person; just because your best friend likes the way a particular mouse fits in his or her hand doesn't mean it will be comfortable for you! Get a hands-on impression before buying.

Delayed Gratification

Another issue to be aware of when shopping online is the amount of time it takes to receive your product. There is usually one or two days of processing time before your order is shipped, and the shipment itself can take another three to five business days to arrive. Faster shipping methods are often available, but they can be costly. Be prepared to wait at least a week before you can play with your new toys.



Some Websites offer "faster processing" or "priority processing" for your order in exchange for an additional fee. The amount of time you save with this option is usually negligible. Save your money for other purposes.

Quality Merchants

Unfortunately, for every quality Website that exists, there are two or three sites that have a questionable reputation. Beware of Websites where prices are significantly below all other Websites because there may be hidden fees or high shipping costs that are not readily apparent.

The best method for finding a reliable Website is to ask a friend, or check message boards for recommendations. The two Websites that we visit most often — www.newegg.com and www.zipzoomfly.com — are great places with solid reputations.

Overall, Internet shopping is wonderful, especially when you're planning to build a new PC. The amount of money you can save and the tremendous selection available will have you scouring the Internet again and again.

Internet Shopping Portals

With so many Websites selling computer parts, wouldn't it be great to search them all at the same time? With the help of Internet shopping portals, such as www.pricewatch.com, you can. Sites like this don't actually sell anything. Instead, they scour hundreds of merchants at once, returning any that are selling the product you identified. Here are a few points to keep in mind, if you plan to enlist the help of these search sites in your quest for quality merchants.

Component Price Range

The greatest advantage to using Internet shopping portals is that they can quickly identify the price range that you should expect to pay for a particular component. Simply take the highest and lowest prices found by your search, and average out how much you should expect to pay no matter where you look.

Estimated Availability

Another advantage to these shopping portals is in determining the average availability of a particular product. If your search reveals 10 Websites and they are all out of stock, the demand for your product may be particularly high. If you find it in stock somewhere, you may not want to wait very long before purchasing it, no matter the price.

Similarly, if only one or two merchants are returned by your search, it may be a sign that your part has been discontinued or replaced by a better model. You might benefit from a little more research before making this purchase.

Inexact Matches

It is important to read your search results very carefully. Some shopping portals may return items that are similar to the one you are searching for, but may not be an exact match. For example, if you are searching for Expansion Card 13ab, your results may include Expansion Card 13, Expansion Card 13a, and Expansion Card 13b along with your desired item. Be sure to read the product descriptions carefully before completing your purchase.

Variable Merchant Quality

Unfortunately, there isn't a single search engine that can scan every possible Website. Thus, your search results may include a few merchants that you don't recognize. Before purchasing a

component from one of the merchants from your search results, compare prices with some of your favorite Websites. It may be worth an extra \$10 or \$15 to get your component from a reliable source.

In general, shopping portals are great one-click tools for gathering information from many online merchants; however, be cautious and read your results carefully. You may be better off using the information that you gather to shop at a more reputable merchant than you would be in giving your credit card information to an online retailer you have never heard of before.

Brick and Mortar Stores

Sometimes, the oldest methods are the best methods. Visiting your local computer store can have some advantages over browsing the Web. The following are some points to ponder if you decide to take a shopping trip.

Great for Getting Your Feet Wet

If you are buying computer parts for the first time, heading to you local store may be a great way to get your feet wet. The limited selection that these stores offer may be less overwhelming than what you find at some Internet superstores. You can also pick up retail boxes and read the detailed descriptions about the component. These experiences can help you visualize products that you find when shopping on the Web.

Advertisements

Brick and mortar stores generally advertise on a weekly basis. These circulars can usually be found in your local paper or at the store itself. The benefit of these flyers is that they deliver price information right to your door. Read over a flyer for an item of interest and make a note of its price. You can then compare that price to your favorite Internet retailer without ever leaving your home.

Rebates

Brick and mortar stores often have extensive rebates on a large array of products. These rebates can save you significant amounts of money in return for a little homework on your part. At the time of purchase, you usually receive a rebate form to send to the manufacturer. Fill out the form and send it, along with any required materials (usually your dated sales receipt and a proof-of-purchase symbol from the product box) to the address on the form. In six to eight weeks, the company will send you a check for the amount of the rebate.

Many people purchase a product and never complete the rebate applications. Fill out the application immediately after you are certain that the product fits your needs and is in good working order. This ensures that the rebate doesn't expire before you get around to filling out the application.



Some rebates are also available for Internet purchases. Check the retailer's Website or the manufacturer's Website for special offers.



Don't clip out proof of purchase symbols from the product packaging before you have verified that the component works. Many merchants do not accept returns if you cut up the original box.

Easy Returns

After waiting two weeks for something to arrive from an Internet retailer, it can be a tremendous disappointment to find that it doesn't work. Luckily, when buying parts from your local store, you can try the part and return it almost immediately. And no shipping is required. Just hope that the return line isn't very long....



Always check your local store's return policy. Often, it is different for computer components and software than it is for general merchandise.

Reward Programs

Some stores are creating frequent shoppers' programs to reward repeat customers. For a small fee you can enroll in a program that rewards you with gift certificates after spending a certain amount of money. If you can get the majority of your parts in a particular store, this may be a significant benefit to you. Do the math; compare the fees with your expected reward to see if it is worthwhile.

Price Match Policy

Often, stores have some form of a price match policy for their products. If you bring in a circular from a competing store offering a lower price, the store may match the price and offer the product to you with an additional discount. If you have many competing stores in your area, you may be able to use a price match policy to your advantage by shopping around and comparing store circulars.

Instant Gratification

The best part about shopping in your local store is the fact that you don't have to wait for the part to be delivered. Some people find it more fun to run through a store on a shopping spree than clicking "Add to Cart" 20 times on a Website. No matter how you feel about this, there is one practical purpose to shopping a local store — emergency parts. If you need a part quickly to get your computer up and running, just head to your local store. You can waste much more time and money trying to find the best price for a product on the Internet and paying to ship it overnight than you would by grabbing it at your local store.

The Decision Making Process: How to Pick the Best Parts

Even though this chapter has discussed general part quality, you need more knowledge than this to select one brand or model over another. Part II of this book has specific information

related to the computer components you need to get your ultimate gaming PC up and running. However, this book could be around a lot longer than the parts mentioned in those chapters. If that happens, the following section outlines some steps that help you perform your own research and select different components.

It's very tempting to just ask a friend or go to a Website and use a pre-published list of parts to build your ultimate gaming PC. Unfortunately, if you use that list three or six months from now, at least one of the components on it will have been replaced by newer technology. Rather than blindly using a random list of parts, it would be better to pick the best parts yourself.

The following section outlines a method for you to use to research your own part selection. We used these strategies, along with a few other resources and our own experiences, to select the components used in these books. The part selection chapters do not simply hail the praises of a particular component or brand. Instead, they identify the qualities that were important to us when we chose each part. You can use those qualities, along with the strategies outlined in the following sections, to choose new parts in the future.

Places to Look for Information

The Internet may be the greatest research tool ever created. With literally a whole world of information one Google search away, you should be able to research just about anything. Unfortunately, with the thousands of search results that can be returned by every search engine, finding the most relevant information can be difficult. Instead of wading through thousands of search results, try looking in some of the following places.

Review Sites

The Internet is a great source of computer hardware review sites. On these sites you find reviews of a wide range of components; hopefully they have some for the parts in which you are interested. They also have articles that compare several components side by side, a process that may provide more information than simply reading about the special features of a single component.

In general, good research sites also list some of the latest computer news, which keeps you abreast of any changes coming to the industry. If the newest technology is right around the corner, you can learn about it here and keep it in mind as you plan your new system. This could prevent you from buying a component that will be obsolete next month.

Good general review sites also contain a number of guides that may be useful to you. These guides may focus on hardware installation, which helps someone new to building their own computer avoid common troubles. They may also cover software and operating system installation, which assist you with installing programs that have a history of being difficult to install. Check these sites often to see what articles are available; they are a great way of learning more about your PC.



Most sites offer a search function that enables you to quickly find a review or an article. For best results, type the model number of the component that you are interested in (i.e. P4B-533e). If the search does not return a useful article, try another one using the band name and a part description (i.e., Creative sound card).

If you want to get started with your research right away, here are some of our favorite sites:

■ AnandTech: www.anandtech.com

■ Tom's Hardware Guide: www.tomshardware.com

■ ExtremeTech: www.extremetech.com

■ CNet: www.cnet.com

Message Boards

Message boards are great places to look for information about computer technology. A message board is a site where a visitor can post a question or information for other visitors to read. If someone wants to comment on your post or add additional information, their response is attached to yours. As more responses are posted, this online "conversation" (called a thread) incorporates the knowledge and views of many different people. By posting a question about a computer part on one of these message boards, you can get the views of many different people, instead of the opinion of a single reviewer who has written an article.

Some message boards operate independently, but many review sites have their own message board capabilities. You can often find links at the bottom of articles that take you to a thread on an associated message board that is currently discussing what the reviewer wrote. This is a great way to get answers to any questions you have on a particular article. You can also see if other readers agree with the opinions stated in the article.

Basic Concepts for Reading Reviews

Most review articles follow the same basic format. Now that you know where to find these reviews, expect to see the following sections in them:

- Introduction: A paragraph that usually introduces the part or parts being reviewed, and possibly the manufacturer as well. The introduction may also make note of other models that are essentially the same as the one being reviewed. Most of the information in one of these articles can be applied to the model mentioned.
- Body: The body of the article discusses features of the product, along with general impressions. Sometimes, the body features simple descriptions of the part. Often, it includes measurements and specifications that may or may not be useful to you.
- Test Results: Most reviewers run a component through several lab tests to measure its performance. This is the easiest way to compare the capabilities of one part to another in the same category. There are usually graphs and charts that display these comparisons in a visual format.
- Summary: At the end of the article, the reviewer quickly summarizes all of the key points made in the article, usually in one or two paragraphs.
- Score: Many reviews offer scores for each part, either on a 10-point scale (i.e., 8.2 out of 10) or as a percentage (i.e., Our Score: 96%).

Because these articles can often be several pages long, it can be difficult to gather the information that you need. Here are some hints on how to get the most out of your research.

Check the Date

The most important (and often overlooked) item to check is the date the article was published. If an article is over six months old, components with more advanced technology may have already been released. If this is the case, the product under review may match up favorably with similar parts mentioned in the article, but not with ones that have recently been released.

Start at the End — Read the Summary First

The best way to get a quick understanding of a particular review article is to jump right to the summary. This section of the article offers quick recaps on the positive and negative aspects of the component without detailed test results and performance measurements.

Don't Worry About the Score

Many Websites list a part's review score on a sidebar or in the header of an article in large font, making it the first thing visitors see. Unfortunately, readers often use this score as the first and last judgment of a product. A better way to use the score is as a general statement of quality and performance. For example, a part that receives a 3 out of 10 likely has several shortcomings, and you should avoid it, especially when compared to a component that received a 9 out of 10. If you are trying to compare a component with a score of 95% to one that received 97%, however, you need to look at the articles closely. That 2% point difference may be a result of a specific reviewer's experience and may not be a reflection of the product itself. You may arrive at a different conclusion after reading the article.

Read the Body and Ignore the Technical Jargon

The body of the article can contain a tremendous amount of information, some of which is not important to a reader who is just looking for a basic understanding of the product. Read through the body, but don't get hung up on anything too technical. Focus on statements that back up the points made in the summary; you should be able to find enough information to support the writer's opinion. Don't get discouraged if you don't understand every word.

Also, keep an eye out for phrases that are important to novice computer builders. For example, look for sentences that state the component is "easy to install and configure," or that the product has "good documentation." These qualities are often minimized by a seasoned reviewer, but they can be very significant to you.

Rinse and Repeat — Go to Other Sites!

After you have found all of the information you are looking for from a particular site, go to another. If possible, read two or three reviews on each part that you are considering for your PC. It is most important to see if each reviewer has the same general opinion on a product. A good computer component generates good reviews on all sites that review the product, not just one.

Advanced Concepts for Reading Reviews

After you are comfortable with getting useful information from review articles, you can expand your research to gain greater knowledge. The following tips may be more time consuming than you'd like, but you learn more about computer technology in the long run.

Expand Your Search — Read Other Articles

A great way to learn more about a particular type of component is to read review articles for other products in the same category. Almost all reviews make note of the leading manufacturer in a particular category when evaluating the reviewed product. See how your product stacks up against the top-ranked component in that category; when the results are in, you may want to switch brands.

Reviews of other products by the same manufacturer as your chosen part give you insight as to the quality and reliability of the company as a whole. If the majority of their products are rated poorly or have bad track records, you may want to purchase from a manufacturer with a better history of quality.

Reading reviews for competing products may point out additional features that are not part of your chosen product. Versatile products that have the latest features exist for a longer period of time before becoming obsolete.

Research the Technical Jargon

When reading the body of the article, we previously recommended skipping over complicated sections with extensive amounts of technical information. As an alternative, you can do additional research on the technical information to fully understand the discussion. Look on the manufacturer's Website for more information about a particular product. Use an Internet search engine such as Google to look up definitions of technical words that appear several times in the same article. If a particular piece of software was used to test the product, go to the Website for that software to learn about the tests and why they truly measure a product's performance. All of these steps provide the background for you to fully understand product reviews.

Basic Concepts for Using Message Boards

Message boards can be hit or miss when it comes to finding information about a product. Messages are not always entirely accurate, and important details on a product can be left out in favor of promoting another aspect of it. The best message board posters include hyperlinks to technical information, quotes from product literature, or other such back-up to support the things they post.

Message boards are extremely useful in registering many opinions in regards to product reliability and overall usefulness. Threads that have several responses indicate a particular topic is generating a significant discussion. If a product has poor reliability, you see many posters complaining about product returns, or insufficient warranties. If a product is difficult to set up, you see many questions about settings, product installation, and error messages. In the end, learning about actual user experiences via the message board can be as useful as any single review.

If you cannot find any threads on a particular product, feel free to create your own. If you are asking technical questions, be sure to include system information in your post (i.e., mother-board model, processor speed, OS, etc.). This ensures that people looking at your post are able to understand your situation and offer appropriate advice and feedback.

What's Next?

Now that you've decided to build your own PC, its time to start looking at the specific components that you'll be putting into your ultimate gaming PC. It's time to go shopping for your parts!