

A NETWORK PRIMER

An introduction to some fundamental networking concepts and the benefits of using LANtastic.

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Welcome to the world of computer networking. This file introduces you to some fundamental networking concepts and tells you how you can save time and money by connecting your computers with the LANtastic $^{\$}$ network operating system.

What is a network?

A network is made up of electronically connected computers located relatively close to each other, usually in the same building. The network consists of all of your computers and some or all of their components, such as disk drives, CD-ROM drives, printers, fax boards and modems. It also includes the network adapter cards, cables and other hardware used to connect the computers, along with the network software itself, such as the LANtastic network operating system.

Award-winning LANtastic has been providing easy-to-use, affordable and safe networking solutions for small and mid-sized businesses since 1982. Today LANtastic connects diverse computers using DOS, Windows[®], Windows 95/98 and NT- as well as computers running other network software, including Novell[®] NetWare[®].

LANtastic is manufactured by Artisoft[®], Inc., an industry leader in the areas of networking, communications and computer telephony.

What are the advantages of using a network?

A computer network saves you time and money. For example:

- You can make an expensive high-quality printer available to everyone who needs it - not just to the person who has it attached to his or her computer.
- You can store a corporate database on a computer with a large-capacity disk drive - and everyone can use it from her own desktop.
- Instead of buying everyone his own copy of an application program, you can purchase a network version and share it from just one computer, saving everyone disk space.
- To keep your file backups simple, you can store everyone's word-processing files on the hard drive of one computer and regularly back up that disk only.

The computer that has the shared printer or disk drive is called a server, which is a key concept that you need to understand in order to use a computer network.

What's the difference between a server and a client?

A server shares some or all of its devices and accessories, such as disk drives, printers and modems, with other computers on the network. A client (often called a workstation) doesn't. The only way you can use a client's disk drives is to sit at its keyboard.

Servers come in two types: dedicated and nondedicated. LANtastic supports both.

A dedicated server serves only the network; no one sits at its keyboard and does daily work. Many small networks don't need such a server, but as your network grows you may decide you want to dedicate a server to doing nothing but processing print jobs, for example. In fact, if the server handles a lot of traffic, you may want to upgrade it for faster speed by installing the LANtastic Dedicated Server software on it.

A nondedicated server functions as both a client and a server. In other words, someone regularly works at its keyboard, but it also shares its drives and printer with other people on the network. This is the most cost-effective way to set up your network, because you don't have to put a computer aside just to handle network processing.

How do I use a server's drives or printers?

Opening a file that's stored on another person's disk drive is just like opening a file of your own. First you "connect" a virtual drive letter on your computer (such as M:) to the server's C: drive, then simply issue the usual open-file command and specify the location of the file on Drive M: (for example, M:\BUDGET\Q2). The spreadsheet, text or graphic appears on your monitor, ready for editing.

Sending a job to a server's printer is even easier, because often a permanent connection to a server's printer has been set up during software installation. In such a case, you simply issue your application program's print command, exactly as you always have.

Note... Although LANtastic lets you set up permanent drive and printer connections at software installation, during your daily work you may need to make new ones. By default the new connections that you make are temporary connections that last only until you shut down your computer. However, you can easily make new permanent connections that become active each time you run LANtastic.

What is network security?

Network security gives selected people access to certain servers, directories and files - and keeps other people out. For example, in order to give your accounting staff exclusive access to your company's payroll files, you could use LANtastic to assign those files a password that only your accountants can use.

LANtastic provides multiple levels of network security, from the default of none at all to security that's fine-tuned enough to limit access to a single file. LANtastic security also gives network managers several ways to track how many people are using which servers for what purposes.

Of course, all of these security features are optional. If you don't need them, you can keep LANtastic's default of no security, so everyone on the network has full access to every shared drive and printer - without ever typing in a user name and password.

How do I "log in" to a server - and why would I need to?

If the person who manages your network sets up security on a server, he or she will assign you a user name and password. From then on, whenever you make a connection to that server, LANtastic will ask you to type in that user name and password - a process that's known as "logging in." If your login is correct, you'll be connected and can then select the drive or printer you want to use.

What if someone else is connected to the server I want to use?

If two people open a file on a server's disk drive or CD-ROM, the server rapidly fills both requests. However, as more people start to open files, the server's response time begins to slow down. When this happens, you can change the server's software settings to allow more requests to be handled efficiently.

If you're among a group of people who use the same server's printer, your job waits in line behind previous ones. However, you don't have to leave your desk to check on printing progress. LANtastic lets you view the status of your print job right on your own monitor - and even notifies you when the job is done.

Can I use the printer attached to my own computer?

How you use your own printer depends on whether or not your computer is a server, and, if it is, whether or not your printer has been set up to be shared on the network. If you do have a shared printer, you'll have to use LANtastic to make a permanent connection to it - just like any other network user. Once you've done this, you can send your jobs for printing in the usual way. Your job waits in line with other network jobs.

Will networking activities interfere with my regular work?

When someone is using your disk drive or printer, you can keep right on working at your keyboard and making your own connections to other servers. All networking activities happen in the background and normally won't interfere with your work.

If a lot of people start using your disk drive at once, however, your own application programs may begin to slow down. If this happens, you can use LANtastic to specify how much of your computer's processing power will be used for networking tasks and how much for your own work. You may also want to consider upgrading to a more powerful computer or moving either your own work or the server's shared files to another, faster computer.

Are there special considerations about sharing programs on a network?

Many programs are available in network versions. When you select a new program, ask its manufacturer or vendor about a network version that's licensed for use by the number of people on your network.

Most programs, probably including the ones you're running now, are "network friendly" and can be installed and set up for use on a network. But before you do this, be sure to ask the manufacturer or vendor about the technical and legal requirements for network use of the program. You can also check its manual to find out if it's designed for network use.

Most programs work great with LANtastic. To be sure that your program is one of them, check for the LANtastic Compatible logo on the product box. Many products that carry this logo provide specific directions for installing them on a LANtastic network. For a list of fully tested LANtastic-compatible products, check the *LANtastic Application Guide*, which you can obtain from one of the sources listed under "How Can I Find Out More about LANtastic?" later in this bulletin.

What if I want to shut down my computer?

If your computer is a client that doesn't share its drives or printer, you can shut it down at your own convenience, just like always. If your computer is a server, however, you'll need to notify other network users before you turn it off or temporarily stop sharing its drives and printer. If you don't let people know that your server is about to shut down, they might lose important data or have their print jobs interrupted.

LANtastic makes it easy to tell people that you're going to stop sharing or turn off your computer. While sitting at your own desk, you can bring up a display that shows you how many people are currently logged into your server. And most versions of LANtastic let you send each of them a pop-up message that indicates your planned time of shutdown.

What version of LANtastic is right for me?_

First you'll want to choose a version that's tailored to work with your computer's operating system, such as DOS, Windows 3.x, Windows 95/98 or NT. Many versions of LANtastic work with more than one operating system, so you have to buy only one product, then mix and match while you're installing the software. For example, you might install LANtastic for Windows on two of your computers and LANtastic for DOS on a third.

You'll also have to decide whether you want to buy a software package, a starter kit or an add-on kit. If all of your computers are already equipped with network adapters and cables, you'll want to buy a software package that's licensed for the number of computers that you want to connect. If, however, your computers don't yet have any network hardware installed, you'll want to buy a starter kit that includes everything you need to get up and

running. Later, when you're ready to expand your network, you'll want to buy an add-on kit that matches the number of computers you're going to add. Of course, you may also want to upgrade your computers whenever a new version of LANtastic is released.

Some LANtastic networking products include special features such as modem-sharing, fax-sharing, remote control and Internet access. You can also add new features by purchasing separate Artisoft products. To learn about new LANtastic features and related Artisoft products, talk to your Artisoft dealer or check one of the sources listed below.

How can I find out more about LANtastic?

Before you buy LANtastic, you can learn all about it from these convenient sources:

- Artisoft Sales Consultation Center. For product information and sales referrals, call 1 (800) 846-9726 in the U.S. and Canada. In other locations, you can obtain the number of the Artisoft office nearest you from the Directory of Support Services, which is available from the sources listed below.
- Artisoft's Home Page on the World Wide Web. To download files and bulletins, visit the home page at http://www.artisoft.com.
 Select the Support and Services area.
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