

It is possible today for an operator using **computerized numerical controls (CNC)** to program a machine to perform a sequence of operations automatically, resulting in great precision and a high degree of reliability. The integration of computers with equipment has improved production speeds and capabilities, simplified setup and maintenance requirements, and increased the demand for workers with computer skills (see **Figure 1-5**).

CAREERS IN WOODWORKING: PAST AND PRESENT

During the Middle Ages in Europe, men working in the trades usually joined associations called *craft guilds*. The guilds were the forerunners of today's unions. A young man would be sent out to train with a **master** at the age of 7 or 8 and typically worked for him for a period of seven years. He was called an **apprentice**. The employer provided a place in his home for the apprentice and fed him in exchange for his labor; the apprentice was legally bound over to the master by his father. At the end of his apprenticeship, and upon demonstrating his skills, the apprentice gained **journeyman** status. They were called *journeymen* because they often left their towns to seek employment. Journeymen worked for masters, who trained apprentices and employed journeymen, who were paid by the masters; so the power and wealth of the guilds was concentrated in the hands of the masters. To gain master status, a journeyman had to

demonstrate his skills to the masters in his guild, and they decided whether he would be moved up or not. This was an extremely competitive process.



HISTORY FACT

The medieval craft guilds system became widespread in the eleventh century in Europe, as towns and cities started to develop after the Dark Ages. The word *craft* comes from the old English *craft*, which means *skill*. ■

Today, a good share of the workforce is involved in one way or another with the processing and manufacturing of products that originate from trees. More than two million people are employed in one capacity or another in working with wood. There are several broad categories of employment. These categories are forestry, lumber processing, papermaking, wood construction, furniture manufacturing, millwork, and the distribution of wood products. Of course, within each of these larger categories are smaller ones. For example, under construction there are three subcategories: *craft*, *technical*, and *professional*.

Craftspeople are carpenters, precision woodworkers or cabinetmakers, and millwrights (see **Figure 1-6** through **Figure 1-10**). The formal training and education required for craftspeople is less than that for technicians and professionals. A person entering one of the craft trades may attend a vocational school and work as an apprentice to a more highly skilled craftsman, or he may learn through on-the-job experience.

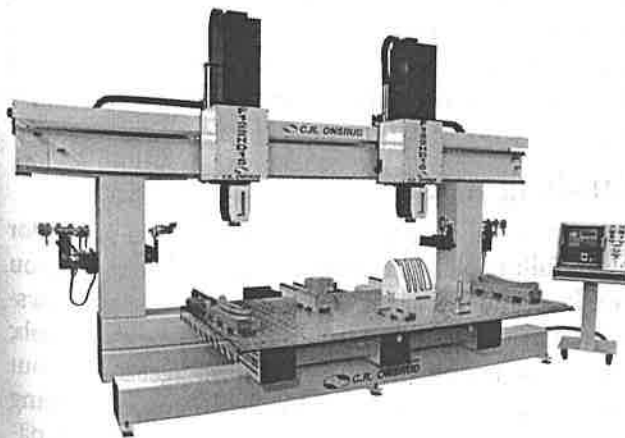


FIGURE 1-5 A CNC router.

Image courtesy of C.R. Onsrud Inc, www.onsrud.com



FIGURE 1-6 Joists set for a deck by carpenters.

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FIGURE 1-7 Deck completed by carpenters.



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FIGURE 1-10 The chairs seen here, and the casework in the background, were built by woodworkers.



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FIGURE 1-8 Porch roof framed by carpenters.



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FIGURE 1-9 Carpenters install hardwood floors.

Technicians include drafters, forestry technicians, and engineering technicians (see **Figure 1-11**). People working in these fields need a minimum of a two-year college degree in their specialty.

Professionals are foresters, furniture designers, teachers, and architects. Professionals need higher academic degrees, such as a bachelor's degree or higher.

Investigating Careers

There are two good resources you can utilize on your computer to learn more about careers in the various categories. One is the U.S. Department of Labor's **Bureau of Labor Statistics**, found at www.bls.gov. Here you will find information on wages by area and occupation, employee benefits, state and local wages, plus a lot more. A second good resource is the **Occupational Outlook Handbook**. It can be reached from the www.bls.gov Web site and provides information on the nature of the work, working conditions, employment, training and advancement, job outlook, earnings, related occupations, and sources of additional information.

Finding a Job

Use all the resources available to you as you search for a job. Talk to a career counselor at your school if you can. Read the help-wanted section in your local newspaper. Put the word out that you are looking for a job, and talk to people in your field of interest to find out how they got started. Most people do not mind being asked for advice, so go ahead and ask. Check the paper for job fairs and attend them, and find out what



FIGURE 1-11 Plans being drawn using drafting software. Most drafting is done this way, and there is a high demand for technicians with these skills.

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opportunities exist in your area in terms of employment. Your local chamber of commerce can help with this.

You may have the opportunity to do an **internship** as part of your academic studies. An internship is supervised practical training undertaken by a student or recent graduate. It is a great opportunity to explore an area of work you are interested in, and you may develop some excellent contacts that will be useful when you are job hunting. You may even be offered a job by the company that sponsored the internship; and if you do an internship, or have related job experience, be sure to mention it in the “Experience” section of your résumé.

Many construction trades have **labor unions**, and you might investigate this path. A labor union is an organization of wage earners formed for the purpose of serving the members’ interest with respect to wages and working conditions. You start in a union as an apprentice. Today’s union apprentices are paid, although at a much lower rate than journeymen. The apprentice must successfully complete a series of classes and put in the required time, and then he is promoted to journeyman status and wages. If you are interested in learning more about becoming a union member, look up the local union office and set up an appointment to talk to someone.

There are numerous woodworking associations that may be helpful in your job search. An Internet search will yield a great deal of information. There may be a local group you might want to get to know, and these contacts could lead to a job.

Another source of good information is trade magazines, available at bookstores and newsstands. There is usually a classified section in which you may find jobs or apprenticeships advertised. You will also

WOODWORKING TIP:

Does your school have a local Skills USA chapter? Skills USA is a national organization serving high school and college students who are enrolled in technical, skilled, and service programs. Skills contests are held at the regional, state, and national levels. The organization promotes leadership, teamwork, and citizenship development, as well as skill development.

find numerous trade-specific advertisements, and perhaps you would like to work for one of these companies. Reading trade magazines will also increase your knowledge of the field.

Preparing a Résumé

Your first step in any job search is to develop a **résumé** — a brief account of your professional or work experience and qualifications, designed to give potential employers a snapshot of who you are and what you can offer a company. The first résumé item is your full name, followed by your address and phone number. There are a wide variety of résumé formats, and you should look at several. They traditionally include the following information, generally arranged in sections:

- Position sought
- Education
- Experience

- Activities
- References

You may also wish to include a section for things that make you special, such as awards you may have earned, or ways in which you have been recognized that are noteworthy and say something positive about you. You might title this section “Awards” or “Honors.” You will also want to develop a list of references at this time. If you have work experience, ask your supervisor if he is willing to give you a good reference. It is important to ask people for their permission before using them as references. Three to five references are plenty, and you should pick people as references who know something about you and your work habits. Avoid using relatives and friends as references.

Next, have a draft of your résumé evaluated by others and get their feedback. They may very well think of items that they believe are important about you that you have not thought to include. Incorporate any changes you choose to make, and then get someone — preferably several people — to proofread your final draft. Your résumé says something about you. It should not contain spelling errors or other obvious mistakes. This says to your potential employer that you are careless, and this is not an impression you want to convey. By the same token, your résumé should be neatly formatted and cleanly printed on good quality paper. It should be easy to read, and should not be more than two pages long. You can probably fit all your information on one sheet, which is preferable. Look at sample résumés you can find at school or on the Internet. Presentation is important, so take the time to do a good job. **Figure 1-12** shows a sample résumé.

Once you have a résumé, and have located some places to apply for a job, do a little bit of research. Find out a few things about the places where you think you might like to work. The chamber of commerce can help here, too. See if the company has a Web site, and check it out. Now, write a cover letter for your résumé, expressing your interest in a position with them, and politely request an **interview**. An interview is a formal meeting, usually in person, arranged for the assessment of the qualifications of an applicant. Assuming you have obtained information about the company, say something that indicates your knowledge.

Interviewing

First impressions are lasting: you have heard this before. It may not be fair, but it is true. The first thing a person notices about you is the way you look. You

should be well dressed and well groomed — leave the cap at home. Dress in a way that would impress an adult in a position of authority. What you wear depends on the type of job for which you are interviewing. Work clothes are appropriate for a job that is manual in nature, but they should be clean and neat. If the job is a technical or professional job, you should be wearing your best dress clothes. You should bring a copy of your résumé with you.

Being able to converse intelligently about the company you are interviewing with is impressive to a potential employer. It demonstrates the level of your interest and the enthusiasm you are likely to bring to the job, so do your homework on that score. Be respectful; treat the interviewer as a potential employer, not a buddy. Be prepared with a list of questions about the job and the company. At some point, the interviewer is sure to ask you if you have any. You want to walk away with as much information as you can. If you have samples of your work, or a portfolio, be sure to take that, and be ready to show it. Make sure it looks as professional as your résumé and your appearance.

Interviewing is not easy. Like most things, it is a skill developed over time. Participating in mock interviews is a great way to practice and hone your interviewing skills.

You may or may not be offered a job at the time of the interview. Often a number of applicants are being interviewed, and the selection is made once all the interviews are complete. When you get home from the interview, sit down and write a thank-you note for the interview, and once again express your interest in the job.

Keeping Your Job

Great, you've landed the job! Now you have to hang on to it. There are a few very simple, common-sense habits you can develop that will serve you well in any employment situation. Even if you decide this is not the job for you, you want to do your best while there, so you can leave with a good recommendation.

A few things will make you a good and valued employee:

- Be on time. Better yet, be a little early. Allow ample time for your commute, so unexpected delays do not cause you to be late. People are depending on you to be there.
- Be prepared. Any tools you need to do your job should be in good condition, and you should have them with you.

YOUR FULL NAME
 Your Street Address
 City, State 00000
 111-555-1234
 you@hotmail.com

OBJECTIVE: Entry level carpenter

EDUCATION:

- High School Diploma, 2009
- Associate of Occupational Studies majoring in Building Trades, State University of New York at Delhi, 2011

WORK EXPERIENCE:

- May 2011 - present: Carpenter, TR Smith Residential Construction Company
- January 2011: Internship with TR Smith Residential Construction Company
- Summer 2010: Roofer, Jay Edwards Roofing Contracting
- Summer 2009: Framing carpenter, Three Brothers Carpentry
- 2007–2009: Stock Clerk, Price Chopper

ACTIVITIES/HONORS:

- Vice president of high school vocational club
- Habitat for Humanity volunteer
- Enjoy hiking, fishing, hunting

REFERENCES AVAILABLE UPON REQUEST

FIGURE 1-12 Sample resumé.

- Be willing to learn, and listen more than you talk.
- Be professional. Treat everyone with respect and tolerance. Your personal beliefs have no place at work.
- Be willing to do all that is asked of you and more. When you finish a task, do not sit around; find out what needs to be done next. Show energy and initiative.
- Do your best. Take pride in your work, whatever it is.
- Remember that work is work. It is not meant to be your social life. Avoid getting involved in long, chatty conversations that are not work related when you are on the clock. This is a real turn-off to any employer.
- Be honest. You know you should not steal, but if you are not working diligently while on the job you are engaged in a type of theft that costs your employer money.
- Be dependable. Do not take time off unless you genuinely need to. You are part of a team, and if you are missing, the team cannot do its job as effectively. If you are unable to attend work for any reason, make sure you call in and let your supervisor know prior to the beginning of the workday.
- Be sensitive to cultural differences and do not assume your personal views are shared by your co-workers. Treat others with the same respect and sensitivity that you want them to show to you.
- Have a positive, can-do attitude. Being negative about your job or your co-workers is a real advancement killer. On every job, there are people who constantly gripe about the way things are, and it is easy to get pulled into this. Don't.

Leaving Your Job

At some point, you will probably change jobs. The way you leave a job is important, because it affects your reputation and the quality of the reference you will be given. Be aware that even if you do not list your former employer as a reference, a smart prospective employer will call your last employer anyway. So when it is time to leave, give sufficient notice. Never quit in anger, no matter how justly aggrieved you may feel. It does not matter. In the same way that you wanted to make a good impression at your interview, you want to leave in such a way that your employer still feels good about you. You have probably heard the expression about not burning your bridges; always keep the possibility of returning to that company open. Once you have given your notice, continue to work just as hard and be just as dependable as you would if you planned to be there forever.

Getting Ahead

If you follow the practical advice given above, you will get ahead. It is that simple. Keep open to learning new skills, too. The more you learn and can do, the more tools you have to succeed. Take advantage of any on-the-job training you can get. When you change jobs, look for one that will better you financially, but also one that will give you the opportunity to better your skills or learn new ones. The more you know, the more valuable — and therefore the more marketable — you will be.

Maintain good relationships with everyone you work with. Three years from now, you do not want to walk into an interview for a new job only to find someone you have not been nice to sitting on the other side of the desk, making decisions about your future.



Summary

People have been working in wood-related jobs for thousands of years. Methods of work have changed, certainly. Today, there is a greater variety of career paths to choose from, which can be a bit overwhelming. Using the many resources available to you, you can begin to narrow the field to dovetail

with your skills and interests. Regardless of your career aspirations, it is important to develop a good résumé and the interviewing skills needed to gain a job. Keeping that job and advancing in it is largely within your control. Develop good work habits, and keep learning!