WOODCITE

A Product Cost Quotation Tool for Wood Component Manufacturers

Jeff Palmer
Jan Wiedenbeck
Adrienn Andersch
Urs Buehlmann

USERS GUIDE

ABSTRACT

WoodCite is a Microsoft® Access-based application that allows wood component manufacturers to develop product price quotations for their customers. The application was developed by the Virginia Polytechnic Institute and State University, in cooperation with the Wood Components Manufacturers Association and the USDA Forest Service.

Key words: wood, components, quotation, manufacturing costs

THE AUTHORS

JEFF PALMER is an information technology specialist with the U.S. Forest Service, Northern Research Station, in Princeton, WV. He received a B.S. in business management and computer science from Bluefield State College in Bluefield, WV. He joined the Princeton, WV, research team in 1991.

JAN WIEDENBECK is a research forest products technologist with the USDA Forest Service, Northern Research Station in Princeton, WV. She received a B.S. degree in forestry from the University of Michigan in 1980, a M.S. degree in forest products from Virginia Polytechnic Institute and State University in 1988, and a Ph.D. in forest products also from Virginia Polytechnic Institute and State University in 1992. From 1981 to 1986 she was employed by Crown Zellerbach, Inc. as a forester and supervisor of sawmill quality control and production. She joined the USDA Forest Service's Princeton, WV research team in 1994.

<We need to gather information from the other authors…>

ACKNOWLEDGMENTS

CONTENTS

WHAT IS WOODCITE?

WoodCite is a Microsoft® Access-based application that allows you to create a product price quotation for your customers. It uses your production data such as materials, labor, and overhead costs (along with your product margin) to compute the total product cost. Before starting, make sure you have the appropriate records and/or documents handy, such as income statements and employment records (number of hired employees, wages, salaries, etc).

WoodCite computes your product cost information based on your entries. In addition to creating a product price quotation, you can use WoodCite to run various scenarios to see where you can improve productivity or add a new machine to your plant, or simply perform a what-if analysis to see where you can reduce costs while ensuring product quality and value.

SYSTEM AND SOFTWARE REQUIREMENTS

WoodCite was developed using Microsoft® Access 2007, and uses Microsoft® Excel to perform statistical computations. Although Microsoft® Office 2007 (including Access and Excel) provides the ideal environment for running WoodCite, earlier versions of Microsoft® Office (such as, but not less than, Microsoft® Office 2002 on Windows XP) will support the application. The minimum requirements are as follows:

- IBM-compatible PC with Microsoft® Windows 2000 to 7 (latest service packs)

installed

- Microsoft® Access 2002 to 2007 (latest service packs)

- Microsoft® Excel 2002 to 2007, with the data analysis tools installed

INSTALLATION PROCEDURES

PRE-INSTALLATION CHECKLIST

If your computer's security settings prohibit you from installing programs, then the WoodCite installation should be performed by a user or administrator who has full administrative rights and privileges to your computer. Installing WoodCite with the lack or absence of administrative rights may cause errors.

Before running the installation utility, make sure that you are aware of the version of your computer's Microsoft Windows operating system and the version of the Microsoft Office package that is installed. WoodCite's installation utility will prompt you to choose a setup routine that is appropriate for the version of Microsoft Office that exists on your machine.

Also, if you are running Windows 2000 or XP, you will need to make sure that your system's default font size is set to "Small fonts" for Windows 2000 systems, or "Normal" for Windows XP systems (Figure 1). These font settings will assure that the installation instructions are readable and fully contained within the document window from where they are displayed. In Windows 2000, use the following steps to adjust your system's

default font size:

- Open the *Control Panel* and select the *Display* icon.

- Select the *Settings* tab and click the *Advanced* button near the bottom of the dialog box.

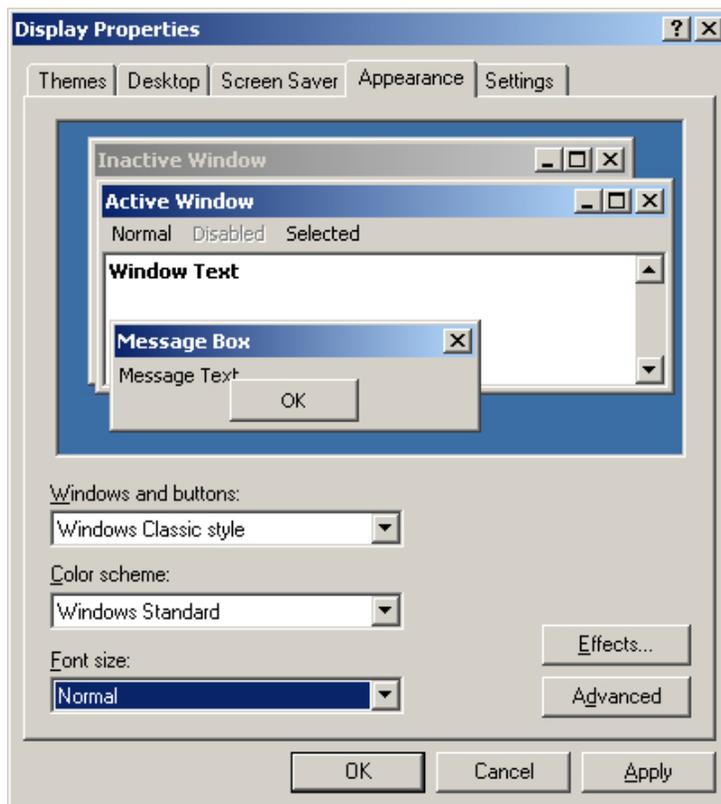- Select the *General* tab and set the *Font Size* to "Small Fonts."

Figure 1.--The Display Properties dialog box for
Microsoft Windows XP systems.

- Click the *Apply* button to accept the changes.

To change the system font size for Windows XP, use the following steps:

- Open the *Control Panel* and select the *Display* icon.

- Select the *Appearance* tab and set the *Font size* to "Normal."

- Click the *Apply* button to accept the changes.

For more information on changing your computer's system settings, refer to your computer's user's guide or your Microsoft Windows operating system manual.

DOWNLOADING, UNZIPPING, AND RUNNING THE INSTALLATION ROUTINE

WoodCite's installation utility is available as a compressed file that resides on a file transfer protocol (FTP) site on the Internet (currently, the file is located on our test site at www.shadesofbluewv.org/WoodCite). After you download the installation file, save it to a directory on your computer, and then uncompress it. Within that directory, locate and execute the INSTALL.EXE file. The WoodCite installation utility appears as shown in Figure 2. When the setup dialog appears, simply follow the instructions provided.
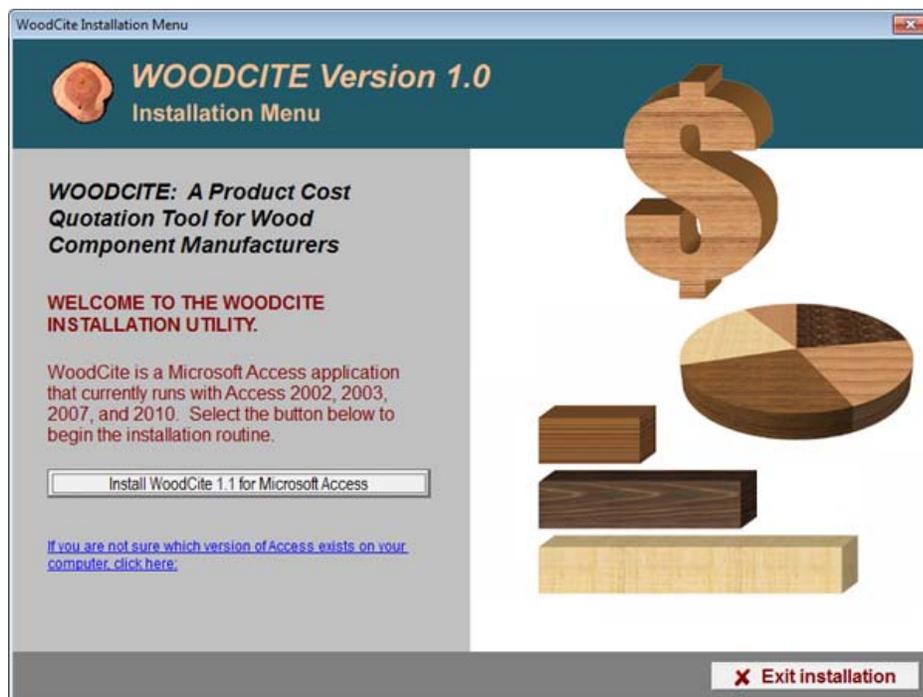

Figure 2.–The WoodCite installation utility.

DRAGGING AND DROPPING THE APPLICATION FOLDER

If for some reason the above installation procedures do not work on your computer, you

can drag and drop the WoodCite application folder to your hard drive. To do this, browse through the directory in which you decompressed the installation utility files, and look for the "Version_1_Access" folder. The WoodCite application (woodcite.mdb) and supporting files reside in this directory. Before you can run WoodCite, you may have to adjust your macro security settings with Access 2002 and 2003 (if the feature is available), or if you are using Access 2007 or 2010, you must allow Microsoft Access to recognize the "Version_1_Access" directory as a trusted location.

Adjusting Macro Security Settings in Earlier Versions of Microsoft® Access
Although WoodCite was developed with Microsoft® Access 2007, it will run with older versions of Access, but this may yield unpredictable results. If you are running WoodCite with an earlier version of Microsoft® Access such as Access 2003, you may have to adjust the macro security settings (keep in mind that this feature may not be available in all earlier versions of Access). To do this, open Microsoft® Access 2003, and from the main menu, select Tools|Macro|Security and set the security level to "Medium" or "Low." Be sure, however, to adjust these back to their original settings before exiting WoodCite. For more information on macro security, refer to the user's guide or other documentation that came with your version of Access.

Defining a Trusted Location with Microsoft® Access 2007 and 2010
If you are using Microsoft® Access 2007 or 2010, you will have to define the "Version_1_Access" folder as a trusted location. To do so, follow these steps:

1. With Microsoft® Access 2007
   a. Click the Office button at the upper left-hand corner of the window

b. Select "Access Options" from near the bottom-right side of the menu. The "Access Options" dialog will appear.

2. With Microsoft® Access 2010

    a. Select the "File" tab near the upper left-hand corner of the window.

    b. Select "Options" near the bottom of the navigator (on the left side of the window). The "Access Options" dialog will appear.

3. Select "Trust Center" at the left side of the "Access Options" window.

4. At the right side of the "Access Options" window, select "Trust Center Settings."

5. At the left side of the "Trust Center" window, select "Trusted Locations" and then select the "Add new location" button near the bottom of the window.

6. Browse for the "Version_1_Access" folder. Be sure to select "Subfolders of this location are also trusted."

7. Select "OK" for each window.

8. Restart Microsoft® Access.

USING WOODCITE

If you installed WoodCite by using the installation utility, then you can start the application immediately by selecting the program icon from the Windows "Start" menu. If you performed the drag-and-drop routine and followed the procedures to define the "Version_1_Access" directory as a trusted location, then you can open WoodCite by opening the "Version_1_Access" folder, opening the "Source" subfolder, and double-clicking the "WoodCite_1_0.mdb" icon, which should be shown as a Microsoft® Access application, depending on the "View" properties of the "Source" subfolder. Please keep

in mind that you cannot enter customer quotation data until you enter information about your company, which is explained in the "Entering Company Information" section of this guide.

THE USER INTERFACE

At startup, WoodCite's welcome page appears and provides you with basic instructions on using the application. When you are finished with the page, click the Proceed button near the bottom left area of the window. You will then see the main application window that contains command tabs, a tool bar, and the document area where customer, quotation, and product information are entered (Figure 3).
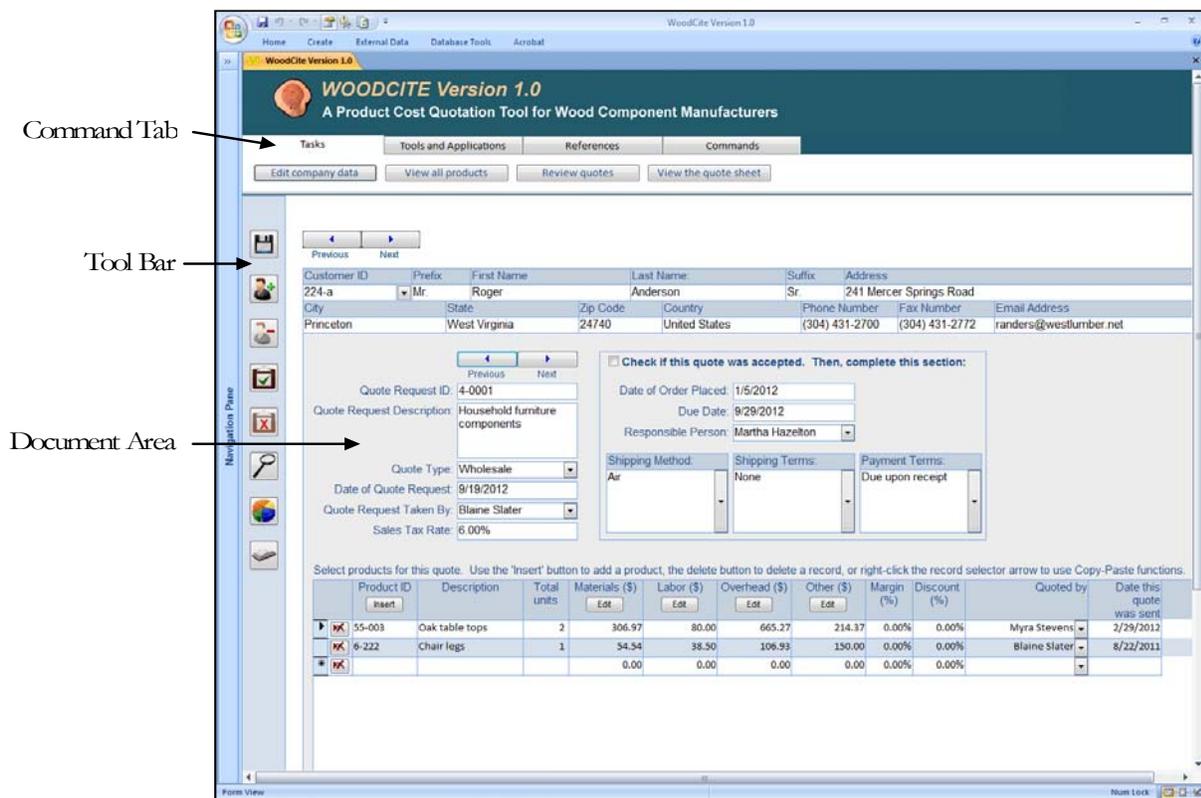

Figure 3.-- The WoodCite user interface.

Command Tabs

The command tabs allow quick access to WoodCite's functions. They are located near

the top of the document area and are labeled as Tasks, Tools and Applications,

References, and Commands (Figure 3). Each command tab contains a series of

buttons that perform specific functions, as shown in Table 1:

Table 1.—The command tabs and the functions associated with each.

Tab Name	Associated Function(s)
Tasks	Edit company data (edit your company's basic information)
	View all products (view the product list)
	Review quotes (view the quotations for the current customer)
	View the quote sheet (view the customer's quotation form)
Tools and Applications	Run ROMI 3.0 (execute the ROMI application -- requires the latest version of Java to be installed onto your computer)
	Metric conversions (run the Foresters' Metric Conversions application)
	System calculator (run the system calculator)
References	Current version (view your current version of WoodCite)
	Database properties (view the database properties)

Commands	Import (import a WoodCite database that is saved in a Microsoft Excel format)
	Backup (save your database to a Microsoft Excel spreadsheet format)
	Delete all data (empty the database)
	Exit (close WoodCite and Microsoft® Access)

The Tool Bar

At the left side of the WoodCite window is a shaded vertical tool bar that contains a series of command buttons (Figure 3). An illustration of the buttons and the function of each are shown in Figure 4.
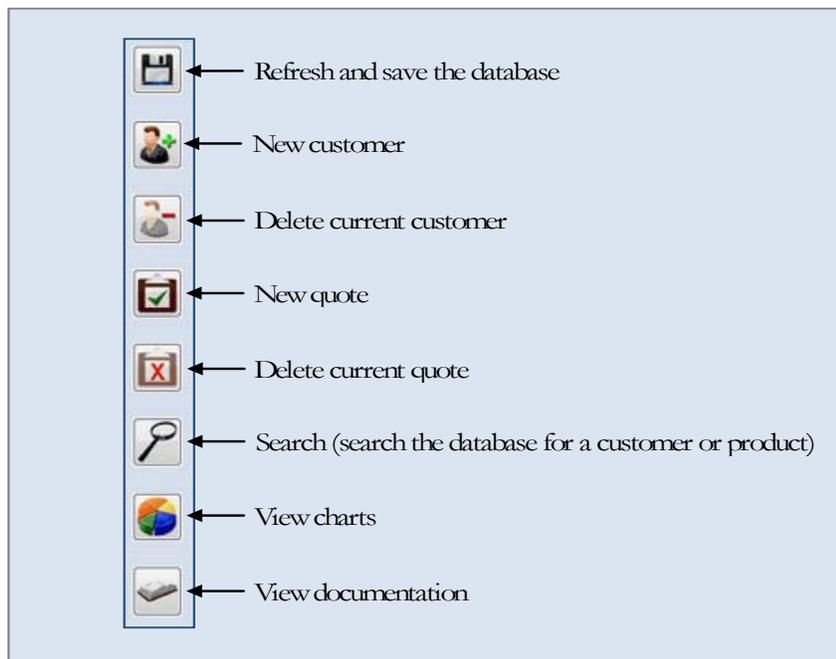

Figure 4.—WoodCite's tool bar buttons and a description of each.

The Document Area

13

WoodCite's document area contains the tables and fields needed for data entry. The top of the document area contains fields for entering customer information, the center part allows you to enter quotation information for the current customer, and the table at the bottom of the document area allows you to specify products requested for the current customer quotation (Figure 5).

Figure 5.—The document area contains fields for entering customer, quote, and product data.

ENTERING COMPANY INFORMATION

Before entering customer, quotation, and product data into WoodCite, you will have to perform a one-time setup for your company by entering your company's name and address, workforce information, manufacturing activities, overhead cost data, shipping standards, materials utilized, and products manufactured. The data you enter will be used to develop cost information for your customer quotation sheets, and you can edit

your company information at any time, if necessary. On the "Tasks" tab, click the "Edit company data" button. The "Company Information" dialog will appear (Figure 6). Table 2 shows a description of the tab pages, and an explanation of the contents of each.

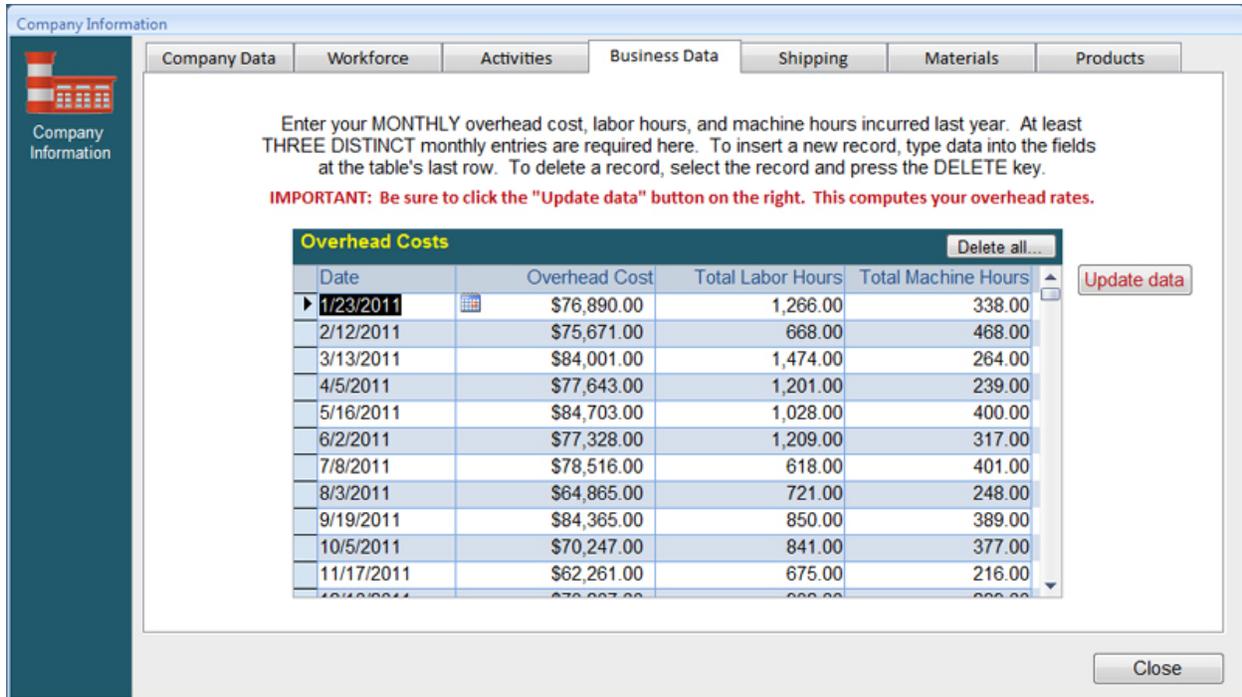Table 2.—The "Company Information" tabs and a description the content of each.

Figure 6.—The "Company Information" dialog allows you to enter or edit information about your business. In this illustration, the "Business Data" tab is selected.

Tab Name	Content
Company Data	Company name, address information, email address, web site, and optional company motto.
Workforce	Employee name, job title, and hourly wage rate.
Activities	Manufacturing activities (activity or machine) and description/comments.

Business Data	Monthly historical manufacturing overhead data: date, overhead cost, total labor hours, and total machine hours. When entering overhead data, you must enter at least three DISTINCTIVE rows of data (the rows cannot be the same). Also, be sure to select the "Update" button once you are finished entering data (this will compute your labor-hour and machine-hour rates). *This is the only area in WoodCite that requires you to enter historical data.*
Shipping	Shipping methods, terms, and payment terms
Materials	Material type, unit measure, species, size, quality, cost per unit, and percent yield.
Products	This is a list of all products that your company manufactures. Be sure to enter a record number, product ID, and description for each product.

When you are ready to set up your company, begin with the "Company Data" tab and enter data into each consecutive tab, as required. Click the dialog's "Close" button when you are finished entering your company's information.

ENTERING CUSTOMER QUOTATION DATA

You are now ready to create a product cost quotation for your customer. Recall that the document area consists of three parts: customer information, quote information, and product information (please refer back to Figure 3 to see the screen shot of the user interface).

Begin entering your customer's information near the top of the document window. Be sure to enter the customer ID in the designated field. For fields that may not apply, simply enter the word "none." Do not leave any fields blank. To navigate between customer records, use the "Previous" and "Next" buttons at the top left part of the customer data entry fields. Use the "New customer" or "Delete current customer" command buttons at the left (Figure 4) to add or delete a customer record as needed.

Next, enter quotation information in the center of the document area. WoodCite asks for a quote request ID, quote request description, quote type (retail, wholesale, other), date of quote request, responsible person, and the tax rate for this potential order. To navigate between the current customer's quotes, use the "Previous" and "Next" buttons just above the "Quote Request ID" field. Use the "New quote" or "Delete current quote" command buttons at the left (Figure 4) to add or delete a customer's quotation record as needed. The next column contains a field that is labeled "Check if this quote was accepted" (Figure 7). For now, do not place a checkmark in this field until this customer quotation has been accepted.

Finally, use the product table near the bottom of the document area to select the

products you will manufacture for your customer. Only predefined products can be selected into the "Product ID" field. If you need to define new products into the database, select the "Tasks" tab, the "Edit company data" button, and then the "Products" tab. Enter or edit your product list as needed and click "Close" when you are finished.

To insert a product from your product list, click the "Insert" button in the "Product ID"

☑ **Check if this quote was accepted. Then, complete this section:**

Date of Order Placed: 1/1/2012

Due Date: 4/1/2012

Responsible Person: Pete James ▾

Shipping Method:	Shipping Terms:	Payment Terms:
Ground	None	Payment due upon delivery

Figure 7.—Complete this section only if a quotation has been accepted by the customer.

field. Click a product record in the list and click the dialog's "Insert" button. A new product record should appear in the product table. Since the products are selected directly from your list of standard products, you should not attempt to modify the data in the "Product ID" field. As for the remaining fields, however, you can enter quantity, material, labor, overhead, other data associated with the manufacturing of each product. For the "Materials", "Labor", "Overhead", and "Other" fields, use the "Edit" buttons to compute each of these costs, if necessary. If you wish to apply a margin or discount, enter each item in the appropriate fields.

VIEWING THE CUSTOMER QUOTATION SHEET

Now that you have entered order and product information for your customer, you can now view the quote sheet. Select the "Tasks" tab and click the "View the quote sheet" button. Your customer's quotation form should look similar to the screen shown in Figure 7. The information you see on the form is based on the data you entered into WoodCite. You can save, send (via email), or print the quotation form. If you are using

Figure 7.-- The product quotation sheet.

a version of Microsoft Access that is older than Access 2007, the "Save" and "Send" command buttons at the top of the quote window may not be available.

CLOSING WOODCITE

When you are finished using WoodCite, you can exit by selecting the "Commands" tab and clicking the "Exit WoodCite" button. WoodCite will ask if you wish to backup your database before exiting. If you select "Yes", then WoodCite will back up the database to a Microsoft Excel worksheet to a disk or network location of your choice. If you select "No", WoodCite will terminate, but not discard your information.

APPLICATION INFORMATION AND SUPPORT

The computer program described in this publication is available on request with the understanding that the U.S. Department of Agriculture cannot ensure its accuracy, completeness, reliability, or suitability for any other purposes than that reported. The recipient may not assert any proprietary rights thereto nor represent it to anyone as other than a Government-produced computer program.

If you have questions, comments or other issues concerning this computer application, our contact information is as follows:

Application Content

Dr. Urs Buehlmann or Adrienne Andersch

Department of Wood Science and Forest Products

Brooks Forest Products Center

1650 Ramble Road

Blacksburg, VA 24061

Phone: (540) 231-7107 – Fax: 540.231.8868

Technical Support

Jeff Palmer

USDA Forest Service

241 Mercer Springs Road

Princeton, WV 24740

Phone: (304) 431-2732 – Fax: (304) 431-2772

Email: jpalmer01@fs.fed.us

REFERENCES

<None listed at this time>.

WoodCite: A Product Cost Quotation Tool for Wood Component Manufacturers [Computer Program]. Gen. Tech. Rep. NRS-XXX. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station.

WoodCite is a Microsoft® Access-based application that allows wood component manufacturers develop product quote sheets to customers. The application was developed by the Virginia Polytechnic Institute and State University, in cooperation with the Wood Components Manufacturers Association and the USDA Forest Service.

The use of trade, firm, or corporation names in this publication is for the information and convenience of the reader. Such use does not constitute an official endorsement or approval by the U.S. Department of Agriculture or the Forest Service of any product or service to the exclusion of others that may be suitable.

Software Disclaimer

This software program is provided "as is" without warranty of any kind. The authors (U.S. Forest Service, Northern Research Station) do not warrant, guarantee, or make any representations regarding the use or the result of the software or documentation in terms of their correctness, reliability, currentness, or otherwise. The entire risk as to the results and performance of the software is assumed by you. In no case will any party involved with the creation or distribution of the software be liable for any damage that may result from the use of this software.