
Woodworks Read-me & How To User Guide

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vs 1.0

Woodworks is an application designed for wood workers to find information about the species of wood they are working with and to perform some of the calculations that they may find necessary in working with wood.

The following calculations are performed by this application:

1. Density at Specific Moisture Content
2. Beam Deflection
3. Moisture Driven Dimensional Change

System Requirements

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1. Windows Vista, 7, 8, or 8.1 (x86 and x64)
2. Microsoft .NET Framework 4.5 (x86 and x64)

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Reference

Information on wood descriptions and all information, not obtained from the user, used in the calculations performed by this program was obtained from:

U.S. Department of Agriculture, Forest Services, Forest Products Laboratory,

Gen. Tech. Rep. FPL-GTR-113. Wood Handbook – Wood as an Engineering Material. Madison, WI. 1999. PDF file.

How To User Guide Contents:

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1. How to Install Woodworks

Steps:

1) Open the folder where the application is located.
2) Click on the Setup application file.
3) Click Install on the prompt window.
4) Application will Launch when installation is complete.

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2. How to Display Information/Description of a Wood Species

Steps:

1) Select the Category of Wood.
2) Select the Species of Wood.

The Description will then be displayed.

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3. How to Calculate Density at Specific Moisture Content

Steps:

1) Select the Category of Wood.
2) Select the Species of Wood.
3) Select Density at Specific Moisture Content from the Calculation drop down menu.
4) Click on Calculate.
5) Select the % of Moisture Content.
6) Choose 12% or Green from the Moisture Content drop down menu.
7) Click on Calculate.

The Density will then be displayed.

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4. How to Calculate Beam Deflection

Steps:

1) Select the Category of Wood.

2) Select the Species of Wood.
3) Select Beam Deflection from the Calculation drop down menu.
4) Click on Calculate.
5) Choose 12% or Green from the Moisture Content drop down menu.
6) Choose Flat or Edge from the Grain Type drop down menu.
7) Enter the appropriate dimensions of the beam.
8) Click on Calculate.

The Beam Deflection will then be displayed.

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5. How to Calculate Moisture Driven Dimensional Change

Steps:

1) Select the Category of Wood.
2) Select the Species of Wood.
3) Select Moisture Driven Dimensional Change from the Calculation drop down menu.
4) Click on Calculate.
5) Enter the width of the beam.
6) Choose Grain Direction - Radial or Tangential.
7) Click on Calculate.

The Moisture Driven Dimensional Change will then be displayed.