BRITISH COLUMBIA

Ministry of Forests

Forest Analysis and Inventory Branch

Variable Density Yield Projection

Volume 2 - WinVDYP7 User Guide

Version v2.0

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1. Introduction

1.1 Purpose of This Document

This document is Volume 2 of a series of five documents supporting the VDYP system.

- **Volume 1 – VDYP Overview** provides general information about VDYP7 application, and describes how to use this documentation set.
- **Volume 2 – WinVDYP7 User Guide** is this document. It describes how to use Win**VDYP7**, an easy to use interactive interface, designed to predict yields one stand at a time.
- **Volume 3 – VDYP7Console Interface Guide** describes in detail how to use **VDYP7Console**, an interface to generate yield tables from text files in CSV format.

This WinVDYP7 User Guide is written for those learning to use WinVDYP7 as well as a reference resource for more experienced users. Section 2 Getting Started has been designed to support experienced users. New users should read all the information in this guide.

Appendix A provides detailed information regarding the processing messages that users may encounter; when running WinVDYP7 or either of the other two interfaces, VDYP7Batch and the VDYP7Console, that are currently supported.

1.2 How to Use This Document

The information in this guide is organized as follows:

- **Section 1 – Introduction** provides general information about the WinVDYP7 application, as well as tips on where to locate supporting information.
- **Section –2 – Getting Started** describes the process of loading WinVDYP7 onto your computer in detail, gives a quick description of the major features, and describes each of the commands available to users.
- **Section 3 – WinVDYP7 Primer** describes how to quickly begin using WinVDYP7.
- **Section 4 – Using WinVDYP7** describes in more detail how to run Win**VDYP7**.
- **Appendix A – Processing Messages** describes the messages that can be generated by WinVDYP7 and the other interfaces.
- **Appendix B – Revision History** lists the revision history of this guide.

Terms and conventions

This document uses standard conventions for displaying information.

Arial Narrow Bold	Indicates text that you type or a button that you click.
Italics	Indicates a label that appears on a screen (for example, a field name or push-button label).
Bold	Used for emphasis.
☞	Indicates important information and warnings.
🖱	Indicates application tips and tricks.

2. Getting Started

2.1 Installing WinVDYP7

For system requirements, downloading and installation instructions, a description of the configuration and other support files, see Volume 1 – VDYP7Overview (section 4).

2.2 WinVDYP7 Processing Messages Overview

From time to time, you may encounter problems associated with the performance of WinVDYP7. Before contacting support staff, refer to Appendix A for an explanation of processing messages.

3. WinVDYP7 Primer

3.1 Running WinVDYP7

Read this sub-section if you have experience using previous versions of WinVDYP7 and Microsoft Windows. The high level concepts presented here will assist you to quickly begin using WinVDYP7. Detailed documentation describing the capabilities of WinVDYP7 can be found in Section 4 – Using WinVDYP7.

☞ This section assumes you have already installed WinVDYP7. If you have not, please refer Volume 1 – VDYPOverview (section 4).

3.1.1 Starting WinVDYP7

To run the WinVDYP7 application, click **Start**, **Programs**, **VDYP7**, **WinVDYP7**.
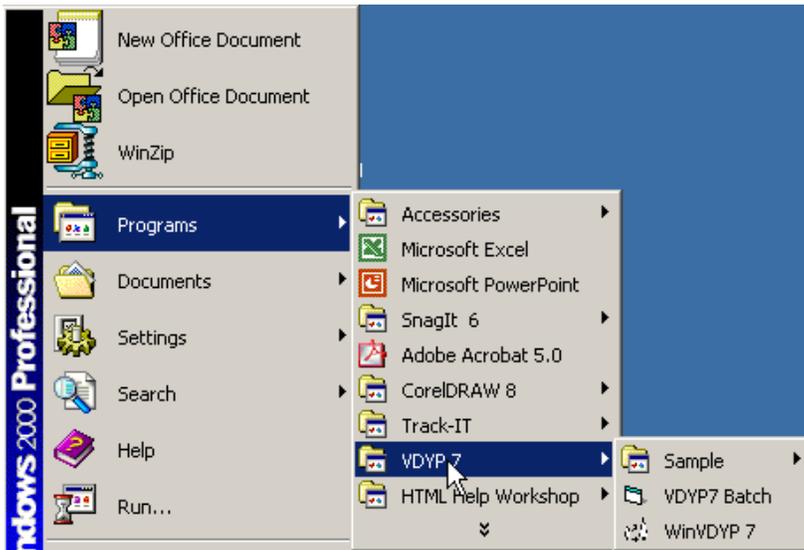
Figure 2-1: Menu Navigation

The following window will be displayed.
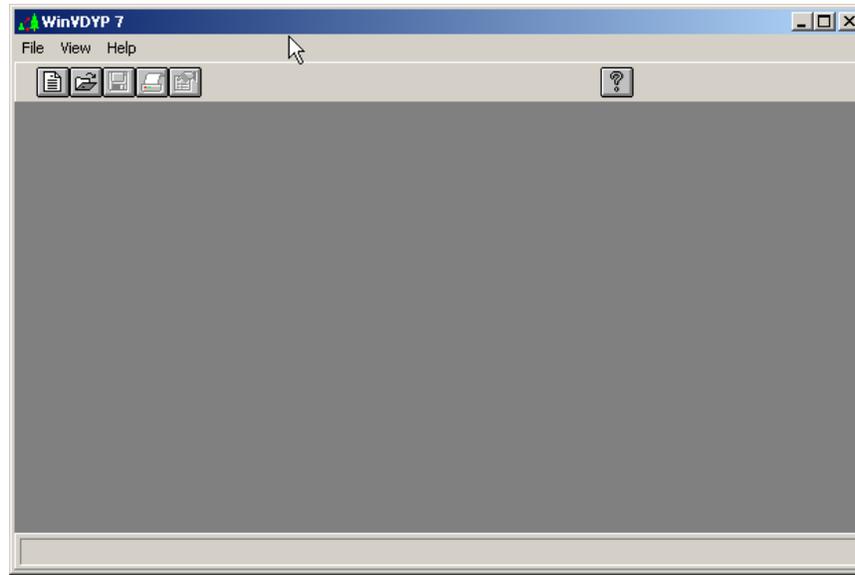
Figure 2-2: The Main Window

3.1.2 Generating a Table

Tables are used to display the growth of stands over time at two different utilization levels. To display the *Species Information* pane and begin defining your table:

1. Click **File**, **New Table**.

Figure 2-3: Species Information Pane

2. Adjust the *Species Composition* and *Species %* of the stand you wish to model by clicking on the down arrows and selecting your choices.

3. Adjust other properties of the model by clicking the *Species % Derived By* buttons.

4. Click the **Next** button at the bottom of the screen to proceed to the *Site Information* pane.

To save your supplied values, click the **Set as Default** button on any pane and your entries will be the new defaults each time you open the *Model Parameter Selection* window to define a new table.

Figure 2-4: Site Information Pane

5. Adjust the *BEC Zone* by clicking on the down arrows and selecting your choice.

6. Adjust other properties of the model by clicking the appropriate buttons, by clicking up or down arrows or by placing your cursor in the boxes and typing new values.

7. Click the **Next** button at the bottom of the pane to go to the *Stand Density* pane. Click the **Prev** button to go back to the *Species Information* pane.

Figure 2-5: Stand Density Pane

8. Adjust the stand properties of the model by clicking up or down arrows or by placing your cursor in the boxes and typing new values.

9. Click the **Next** button at the bottom of the screen to go to the *Additional Stand Attributes* pane shown below. Click the **Prev** button to go back to the *Site Information* pane.

Figure 2-6: Additional Stand Attributes Pane

10. The *Additional Stand Attributes* pane defaults to *Use Computed Values*. To adjust the additional stand attributes of the model, click the **Supply Values** button and WinVDYP7 will permit you to type new values.

11. Click the **Next** button at the bottom of the screen to go to the *Report Information* pane shown below. Click the **Prev** button to go back to the *Stand Density* pane.

Figure 2-7: Report Information Pane

12. Use the *Report Information* screen to adjust the report information.

13. Click the **Run Model** button at the bottom of the screen to run the model and generate the table. Click the **Prev** button to go back to the *Additional Stand Attributes* pane. See below for a sample report.

```
                        A Sample Report Title

                        VDYP7 Yield Table
              Douglas Fir 85.0%, Grand Fir 10.0%, Western Red Cedar 5.0%


                    Quad                       |  Whole
          Site Lorey Stnd                      |  Stem
TOT    HT   HT   DIA      BA         TPH        |  VOL
AGE    (m)  (m)  (cm) (m**2/ha) (trees/ha)     | (m**3/ha)
-------------------------------------------------------------
                                               |
 50   11.6   9.9  12.0      9.2        821     |     36.8
 60   13.7  12.4  12.7      9.4        746     |     47.2
 70   15.6  14.5  13.5      9.6        673     |     56.2
 80   17.2  16.5  14.3      9.8        607     |     64.1
 90   18.7  18.2  15.1      9.9        550     |     71.1
100   20.0  19.7  16.0     10.0        500     |     77.3
110   21.2  20.3  17.0     12.4        551     |     97.4
120   22.2  20.9  17.9     14.6        579     |    116.3
130   23.1  21.5  19.0     16.6        588     |    134.2
140   24.0  22.0  20.0     18.4        583     |    150.3
150   24.8  22.5  21.0     19.8        570     |    163.6
160   25.5  22.9  22.0     21.0        552     |    174.6
170   26.1  23.2  22.8     21.8        535     |    182.7
180   26.7  23.4  23.5     22.5        519     |    188.7
190   27.3  23.6  24.1     23.0        504     |    193.2
200   27.8  23.8  24.6     23.3        490     |    196.4
210   28.2  23.8  25.0     23.4        477     |    197.5
220   28.7  23.9  25.4     23.5        465     |    198.2
230   29.1  23.9  25.7     23.6        454     |    198.8
240   29.4  24.0  26.1     23.7        444     |    199.4
250   29.8  24.1  26.4     23.7        434     |    199.9
260   30.1  24.1  26.7     23.8        425     |    200.4
270   30.4  24.2  27.0     23.9        416     |    200.9
280   30.7  24.2  27.3     23.9        408     |    201.3
290   31.0  24.3  27.6     24.0        400     |    201.8
300   31.2  24.3  27.9     24.0        393     |    202.2


NOTE: Actual Percent Stockable Area Used: 77%


TABLE PROPERTIES:

WinVDYP Version Number... 7.16c        % Stockable Area Supplied 0
VDYP7 Core DLL Version... 7.14a.13     Trees Per Hectare........ 500.00 (7.5+)
VDYPSI Version Number.... 7.5a         Measured Basal Area...... 10.0000 (7.5+)
SINDEX Version Number.... 1.35         Starting Total Age....... 50
Species 1................ FD (85.0%)   Finishing Total Age...... 300
Species 2................ BG (10.0%)   Age Increment............ 10
Species 3................ CW (5.0%)    Min DBH Limit: F ........ 7.5 cm+
VRI Calc Mode............ 1            Min DBH Limit: B ........ 7.5 cm+
BEC Zone................. IDF          Min DBH Limit: C ........ 7.5 cm+
% Crown Closure Supplied. <Not Used>

Species Parameters...
 Species | % Comp | Tot Age | BH Age | Height | SI | YTBH
 --------+--------+---------+--------+--------+--------+---------
    FD   | 85.0   | 100.0   | 89.0   | 20.00  | 13.93  | 11.50
    BG   | 10.0   | 100.0   | 91.0   | 32.80  | 22.36  | 9.50

Site Index Curves Used...
 Age Range | Species | SI Curve Name
 ----------+---------+-------------------------------------------------
   50 - 300 |   Fdi   | 96 - Thrower and Goudie (1992ac)


Additional Stand Attributes:
----------------------------

None Applied.
```

Figure 2-8: A Sample Report

Use the scroll bars or resize the table window to view all of the results.

3.1.3 Editing Table Properties

You can adjust any of the settings you defined for your table and re-run the model by clicking on the table window to ensure it is active, then clicking **Edit**, **Properties**. The first pane will pop up (*Species Information*). Navigate through the panes to alter the properties you previously defined.
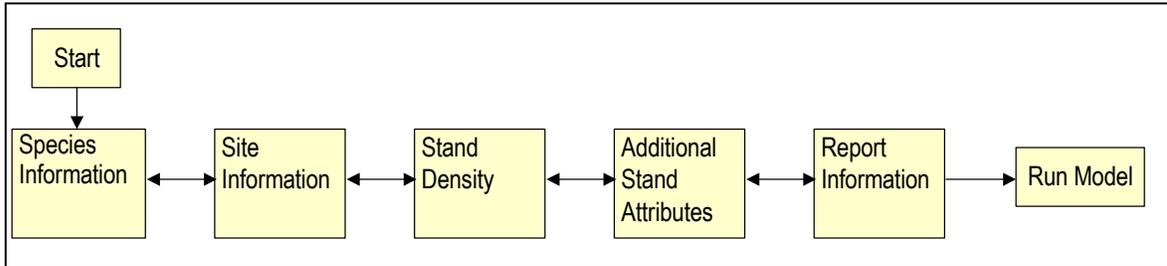
Figure 2-9: Model Parameter Selection Pane Navigation

3.1.4 Saving a Table

Save the table by clicking **File**, **Save**. A standard *Save As* window will pop up allowing you to name the table and specify a storage location.

3.1.5 Comparing Tables

You can model more than one table, and display all the table windows on your screen by clicking the *Window* menu and choosing **Tile Vertical** or **Cascade**.

3.1.6 Printing a Table

To print a table click **File**, **Print**. A standard *Print* window will pop up so you can send the table to your printer.

If you have created more than one table, select the table you want to print by clicking on the table to be printed (the title bar will change colour and the table will be displayed on top of the other tables), then click **File**, **Print**.

3.1.7 Exiting WinVDYP7
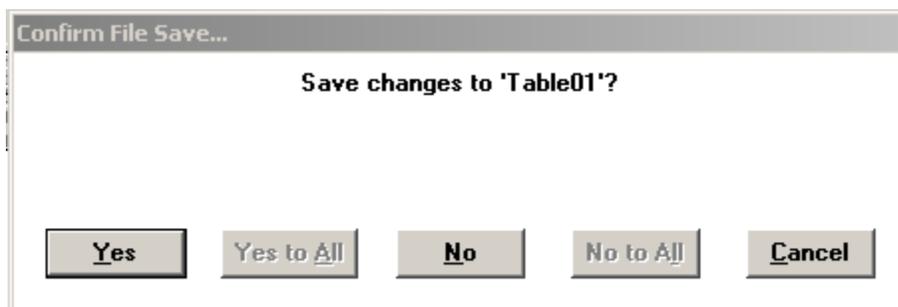
Figure 2-10: Confirm File Save Dialog

1. To exit WinVDYP7 click **File**, **Exit** or click the [X] button in the top right corner of the window.

2. If you have made changes to any table(s) the above window will display:

3. If you have made changes to multiple tables, click **Yes to All** to save all tables. Alternatively, you can choose to save each table independently by clicking the **Yes** or **No** buttons. You can also choose to save none of the tables by clicking **No to All**.

4. If you choose to save a table, a standard *Save As* window will pop up allowing you to name the table and specify a storage location.

3.2 Using WinVDYP7 Menu Commands and Toolbar Buttons

This sub-section is the reference for all menu commands and toolbar buttons available in
WinVDYP7.

3.2.1 The Main Window

The main window appears as shown below. When the window is open, you are running WinVDYP7.
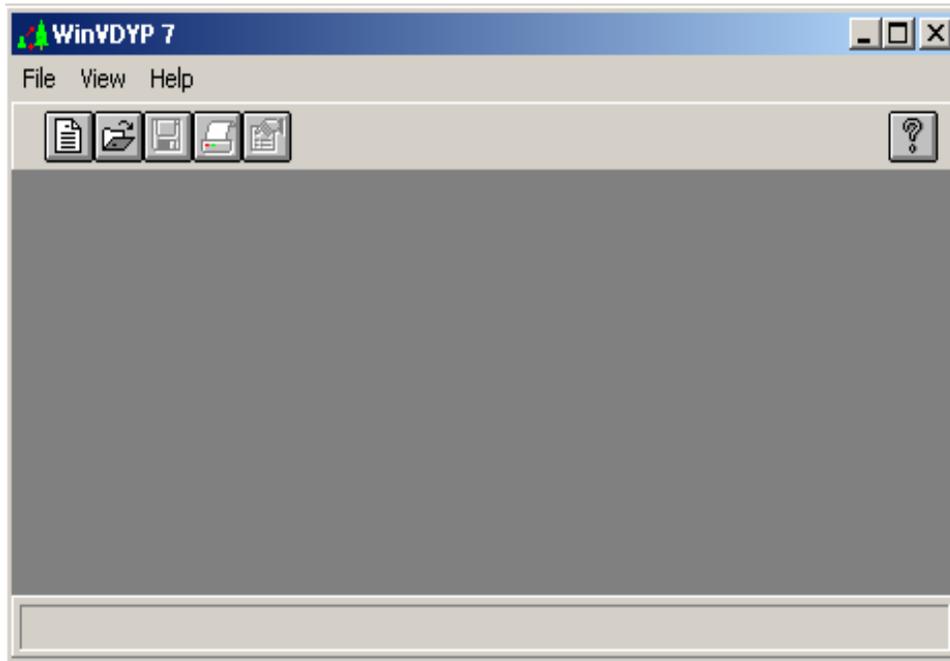
Figure 2-11: The Main Window

3.2.1.1 Main Window Controls

The controls available in the main window are common to all Windows applications, and are
described below.

•**System Button:** Activate by clicking or by pressing **Alt-Space**. When activated, the menu
shown below pops up. Click to choose a menu item.
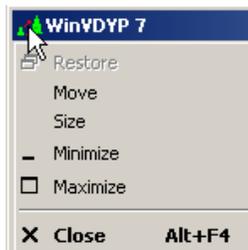
Figure 2-12: System Menu

- **Title Bar**: this bar displays the application name. Hold the left mouse button down on it and move the mouse to move the window. Double click to maximize the window to whole screen or, if already maximized, return to previous size.
- **Minimize Button**: this button shrinks the main window down to an icon and places it near the bottom of your screen. Use the *Minimize Button* to switch to another application without exiting WinVDYP7.
- **Maximize Button**: this button expands the window to fill the entire screen. If the window has already been maximized, clicking on this button will return it to its original size.
- **Close Button**: Click this button to close WinVDYP7.
- **Menu Bar**: this bar contains all available menus. Click a menu name to display the menu items, or press the **Alt** key and the underlined letter of the menu you wish to display. For instance, to activate the *File* menu, you can press the **Alt** and the **F** keys at the same time (**Alt-F**).

The menu bar provides different options depending on if a table is currently open or not. For instance, the *Edit* menu does not appear until you open or create a table. The next section provides more details on the menu bar.

- **Tool Bar**: this bar provides quick links to some of the menu items. These buttons include:

Button	Function	Menu Path
	New Table	File, New Table
	Open Table	File, Open
	Save Table	File, Save or Save As
	Print Table	File, Print
	Table Properties	Edit, Properties
	Help	Help, Contents (not yet available)

- **Working Area**: Tables will default to display in this area, however you can shrink or minimize the WinVDYP7 window and display tables anywhere on your screen.
- **Status Bar**: this bar displays status messages such as what the current button is as you move the mouse over it, and what WinVDYP7 is doing during a long calculation.
- **Resizing Border**: hover your cursor over this border and your cursor will change to a two-headed arrow. Press and drag to resize the window.

3.2.2 File Menu

Two different *File* menus may display during a typical WinVDYP7 session, although only one is active at any one time. Figure 2-13 and Figure 2-14 show these menus.
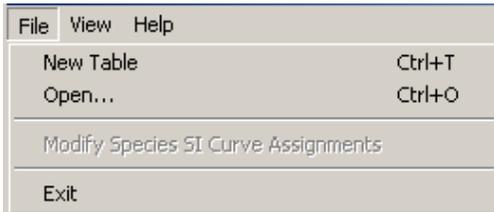
Figure 2-13: File Menu – No Table Open
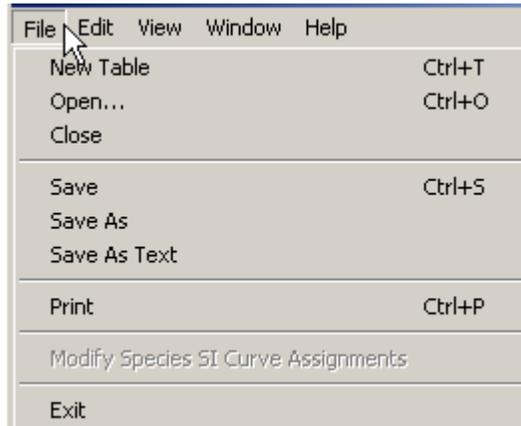
Figure 2-14: File Menu – Table Open

3.2.2.1 New Table

Select **New Table** to open the *Model Parameter Selection* window and begin defining a new table. Activate this item in one of four ways:
- Click on the **File** menu, and then click on the **New Table** menu item.
- Press **Alt-F** to activate the *File* menu, then press **T** to select the *New Table* menu item.
- Press **Ctrl-T** to directly activate this command without having to go through the File menu.
- Click on the **New Table** toolbar button.

For more information regarding the table parameters, refer to Section 4.

3.2.2.2 Open

Select **Open...** to display a table that you have previously saved to disk. Activate this item in one of four ways:
- Click on the **File** menu, then click on the **Open...** menu item.
- Press **Alt-F** to activate the *File* menu, then press **O** to select the *Open...* menu item.
- Press **Ctrl-O** to directly activate this command without having to go through the *File* menu.
- Click on the **Open...** toolbar button.

When selected, you cause a standard windows *File Open* window to open (Figure 2-15) that lists only table (.TBL) files.
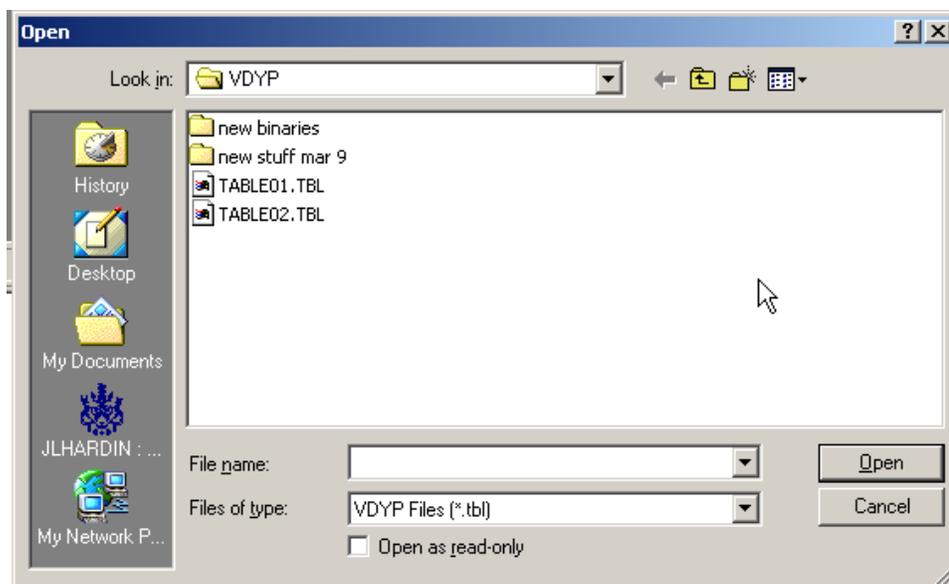
Figure 2-15: File Open Dialog

Select the table you wish to open and press **OK**; or click **Cancel** to close the *Open* window.

3.2.2.3 Close

This menu item closes the currently selected table and is only available when there is at least one table open in the main WinVDYP7 window. Activate this menu item in one of three ways:

• Click the **File** menu, and then click the **Close** menu item.

• Press **Alt-F** to activate the *File Menu*, then press **C** to select the *Close* menu item.

• Press **Ctrl-F4** to close the window directly without having to go through the *File menu.*

When you close an open table that has been modified, you will be asked if you want to save the changes first.

If you click **Yes**, a standard file *Save As* window will appear.

3.2.2.4 Save

This menu item will save the current table to disk and is only available when you have a table open. Activate this item in one of four ways:

• Click the **File** menu, then click the **Save...** menu item.

• Press **Alt-F** to activate the *File* menu, then press **S** to select the *Save...* menu item.

• Press **Ctrl-S** to directly activate this command without going through the *File* menu.

• Click on the **Save...** toolbar button.

When selected, the file is saved. If the table is new or has been changed, a standard file *Save As* window (see Figure 2-16) will open, so you can accept the default name and location, or give the table a name and storage directory.
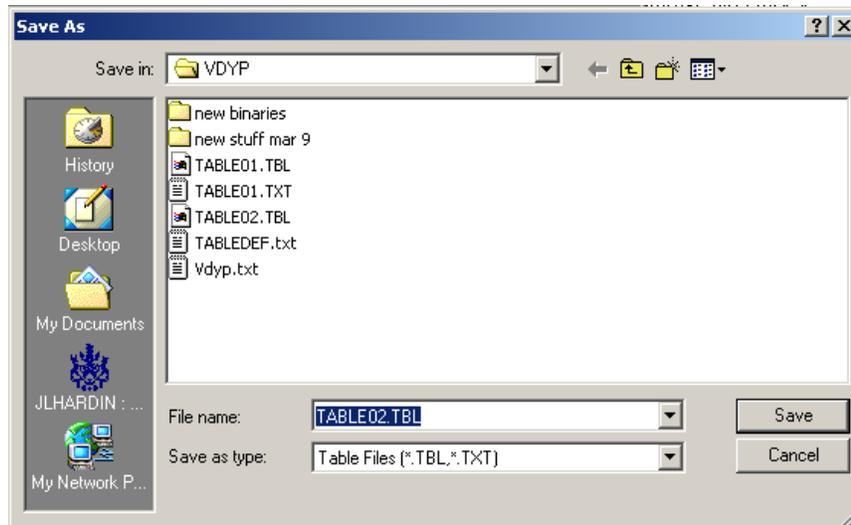
Figure 2-16: File Save / Save As Dialog

Click OK and the table will be saved to the file named in the window.

If you prefer not to save the file, click on the **Cancel** button.

3.2.2.5 Save As

This menu item will open a standard file *Save As* window (Figure 2-16). This command is only available when you have a table open.

Activate this item in one of two ways:

•Click on the **File** menu, then click on the **Save As...** menu item.

•Press **Alt-F** to activate the *File* menu, then press **A** to select the *Save As...* menu item.

When selected, a file *Save As* window is displayed (see Figure 2-16) allowing you to assign a different file name by specifying a new name in the file name box.

If you prefer not to save the file, click on the **Cancel** button to stop the operation.

A new file saved this way is completely independent of the first, and you may wish to open the first again to create another copy of the table. This facility provides a convenient mechanism to create a few tables that are similar.

3.2.2.6 Save As Text

This menu item will save the current table as an ordinary text file. This command results in a text file which looks exactly like the report in the table window. This command is only available when you have a table open and in the current working window.

☞ It is important to remember that tables saved as a text files cannot be opened by WinVDYP7. If you want to save a table so that WinVDYP7 can open it again, use the *Save* or *Save As* commands.

You use a text reader such as Notepad to open text files, and text files can also be imported into many other programs such as Microsoft Excel.

Activate this item in one of two ways:
•Click the **File** menu, then click the **Save As Text** menu item.

•Press **Alt-F** to activate the *File* menu, then press **T** to select the *Save As Text* menu item.

A file *Save As* window will be displayed allowing you to name and store the text file.

3.2.2.7 Print

This menu item will print the current table. This command is only available when you have a table open.

Activate this item in one of four ways:
•Click the **File** menu, then click the **Print** menu item.

•Press **Alt-F** to activate the *File* menu, then press **P** to select the *Print* menu item.

•Press **Ctrl-P** to directly activate this command without having to go through the *File* menu.

•Click on the **Print** toolbar button. 🖨

When selected, a standard *Print Setup* window will appear (see Figure 2-17).

If you prefer not to print the file, click the **Cancel** button to stop the operation.
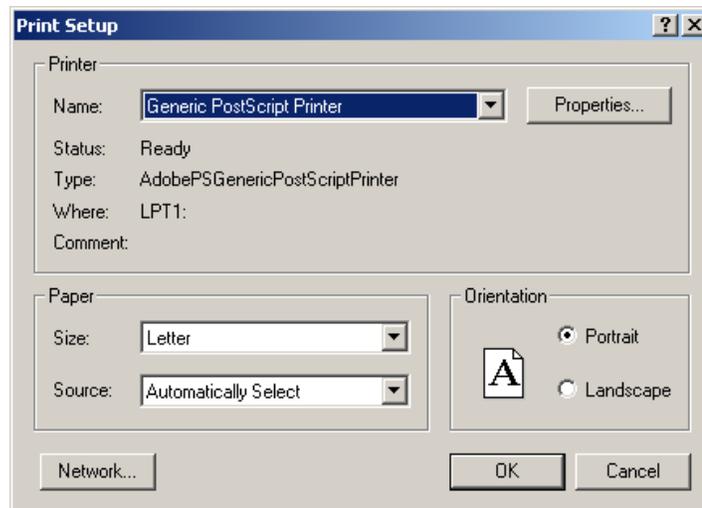
Figure 2-17: Print Setup Window

3.2.2.8 Exit

This menu item will exit WinVDYP7. There are four ways to pick this menu item:

•Click the **File** menu, then click the **Exit** menu item.

•Press **Alt-F** to activate the *File* menu, the press **E** to select the *Exit* menu item.

•Click on the system button (Figure 2-11) of the WinVDYP7 main window then select the **Close** item.

•Press **Alt-F4** to exit WinVDYP7 directly without having to go through any menus.

When this command is activated, WinVDYP7 checks to see if any of the open tables need to be saved either because they are new or because you have made changes to them that you have not yet saved. If WinVDYP7 finds such tables, the window in Figure 2-18 is displayed.
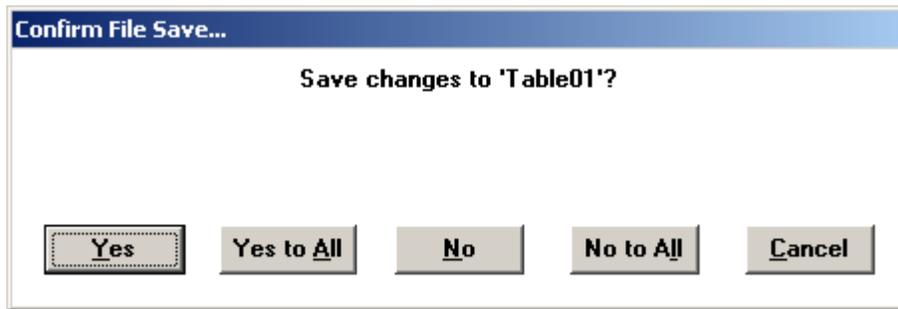
Figure 2-18: Confirm File Save Window

Each time the window in Figure 2-18 is displayed, you may answer in one of the following ways:

•**Yes**: the table is saved just as if you had clicked on the *File* menu, then on the *Save* menu item.

•**Yes to All**: all tables are saved to their respective files automatically and this window will not be displayed again. New tables will be given default names and stored in the current directory.

•**No**: the current file is not saved to disk. Recent changes to this file are lost.

•**No to All**: all tables are not saved and all changes will be lost.

•**Cancel**: this table is not saved, and WinVDYP7 will not exit. You are returned to the program with all remaining tables open and in their same state.

Once all unsaved files have been prompted for action on saving or not, and assuming you did not select the *Cancel* button, the main window will disappear indicating WinVDYP7 has shut down.

3.2.3 Edit Menu

The *Edit* menu appears only if you have at least one table open.
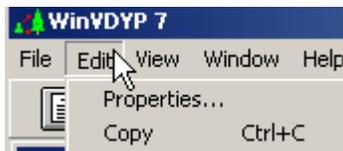
Figure 2-19: Edit Menu

3.2.3.1 Properties

This menu item allows you to open the *Model Parameter Selection* window to change the table parameters. It is available only when you have a table open.

Activate this item in one of four ways:

•Click on the **Edit** menu, then clicking on the **Properties...** menu item.

•Press **Alt-E** to activate the *Edit* menu, then press **P** to select the *Properties* menu item.

•Move your mouse so the cursor is over a table and click the right mouse button.

•Click on the **Properties** toolbar button.

Once you have made changes to the properties of the stand, you can click on the **OK** button to generate the new table, or you can click on the **Cancel** to abandon any changes you may have made.

☞   For more information regarding the table parameters, refer to Appendix A.

3.2.3.2 Copy

Use the *Copy* command to copy a table to the clipboard for pasting into a document in another application such as a word processor. This command is available whenever a table is open. By default, when you activate this command, the entire table is copied. Before printing a table it may be necessary to switch to landscape orientation. If the table lines wrap or columns are not lined up, try selecting Courier font size 8.

Activate this command in one of three ways:

•Click on the **Edit** menu, then click on the **Copy** menu item.

•Press **Alt-E** to activate the *Edit* menu, then press **C** to select the *Copy* menu item.

•Press **Ctrl-C** to short cut using any menus.

The View menu allows you to change the appearance of some of the features of the main WinVDYP7 window, and to keep the WinVDYP7 log file window open.

Click on the **Toolbar** and **Status Bar** menu items under *View* to activate and deactivate the toolbar and the status bar. See Figure 2-20. These commands are useful for maximizing the space available on the screen.
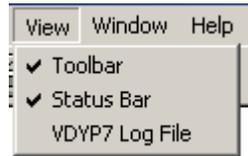
Figure 2-20: View Menu

3.2.3.3 Tool Bar

By successively clicking on this command, you will cause the tool bar to disappear and to reappear. There are two ways to activate this command:

•Click the **View** menu, then click the **Toolbar** menu item.

•Press **Alt-V** to activate the *View* menu, then press **T** to select the *Toolbar* menu item.

After selecting this item, the check mark will either disappear or reappear. If it disappears, so will the toolbar. By activating this command again, the toolbar will reappear.

3.2.3.4 Status Bar

By successively clicking on this command, you will cause the status bar to disappear and to reappear. There are two ways to activate this command:

•Click the **View** menu, and then click the **Status Bar** menu item.

•Press **Alt-V** to activate the *View* menu, then press **S** to select the *Status Bar* menu item.

After selecting this item, the check mark will either disappear or reappear. If it disappears, so will the *Status Bar* at the bottom of the main window. By activating this command again, the status bar will reappear.

3.2.3.5 VDYP7 Log File
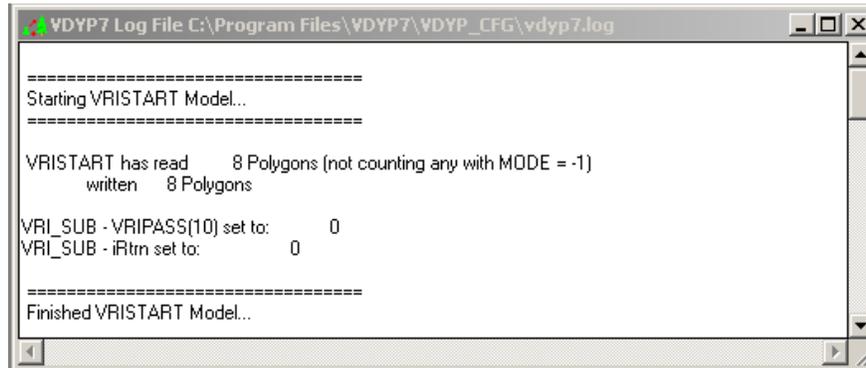
Figure 2-21: Log File Window

Click on the **VDYP7 Log File** menu item to open the *Log File* window. The *Log File* window allows you to monitor the operations being performed by WinVDYP7 (Figure 2-21).

The physical location for this file is in the VDYP_CFG folder under the WinVDYP7 installation folder as the title bar in Figure 2-21 suggests. It is overwritten with each time a model is computed.

3.2.4 Window Menu

This menu allows you to select and manipulate the table windows you have open, and the *Log File* window. Using this menu you can create orderly arrangements of all open windows or select a particular one from a large set of open tables. See Figure 2-22.

Figure 2-22: Window Menu

3.2.4.1 Cascade

This command causes all the open windows to overlap each other with the title bars showing. This method is the default method of opening windows such that if you opened a whole series of tables in succession, this is how they would display. This command is only available when at least one table is open.

Activate this command in one of three ways:

•Click the **Window** menu, then click the **Cascade** menu item.

•Press **Alt-W** to activate the *Window* menu, then press **C** to select the *Cascade* menu item.

•Press **Shift-F5** to activate this command directly.

3.2.4.2 Tile Horizontal

This command causes all open windows to line up one over the other, filling the entire width of the main window. Windows are sized and positioned to line up evenly with one another. This command is only available when at least one table is open. Activate this command in one of three ways:

- Click on the **Window** menu, and then click on the **Tile Horizontal** menu item.
- Press **Alt-W** to activate the *Window* menu, then press **H** to select the *Tile Horizontal* menu item.
- Press **Shift-F4** to activate this command directly without using the menus.

> This command is especially useful for comparing two or more tables. You can use this command to line up the tables and then use the scroll bars to view identical regions of both tables.

3.2.4.3 Tile Vertical

This command causes all open windows to line up side by side, filling the entire width and height of the main window. Windows are sized and positioned to line up evenly with one another. This command is only available when at least one table is open. Activate this command in one of two ways:

- Click on the **Window** menu, and then click on the **Tile V**ertical menu item.
- Press **Alt-W** to activate the *Window* menu, then press **V** to select the *Tile Vertical* menu item.

3.2.4.4 Arrange Icons

From time to time you may wish to clean up the icons along the bottom of the main window. As windows open and close these icons tend to get spread out. This command groups them neatly along the bottom of the main window and is only available when there is at least one table open. This command can be activated in one of two ways:

- Click on the **Window** menu, and then click on the **Arrange Icons** menu item.
- Press **Alt-W** to activate the *Window* menu, then press **A** to select the *Arrange Icons* menu item.

3.2.4.5 Individual Windows

This command allows you to select an individual table from all of the open tables. When you have large numbers of windows open, it is sometimes hard to find the particular window you are looking for, especially if other windows conceal it. This command can be activated in one of two ways:

- Click on the **Window** menu, and then click on the particular window you are interested in.
- Press **Alt-W** to activate the *Window* menu, then press the number corresponding to the window you want to display. For instance, in Figure 2-22, if you wanted the *Table02* window, press **2**.

3.2.5 Help Menu

The *Help* menu provides access to all help available through WinVDYP7.

Currently, on-line help has not been written and therefore the main commands within this menu have been disabled. When on-line help is available, these commands will be enabled and help will be provided. See Figure 2-23.

Figure 2-23: Help Menu

3.2.5.1 This Window

This command provides Help for the current window.

3.2.5.2 Contents

This command starts Help and provides a table of contents.

3.2.5.3 Search for Help On

This command asks you for a keyword about the topic you wish help on, and then provides a choice of all the help topics relating to that keyword.

3.2.5.4 How to Use Help

This command provides standard Windows help on how to use and navigate through the features of WinVDYP7 Help.

This command is activated in one of two ways:

•Click on the **Help** menu, then click on the **How to use Help** menu item.

•Press **Alt-H** to activate the *Help* menu, then press **H** to select the *How to use Help* menu item.

3.2.5.5 About

This command displays a window that provides you with information about WinVDYP7's authors, version information and other system related information. Figure 2-24 provides a sample of this window.
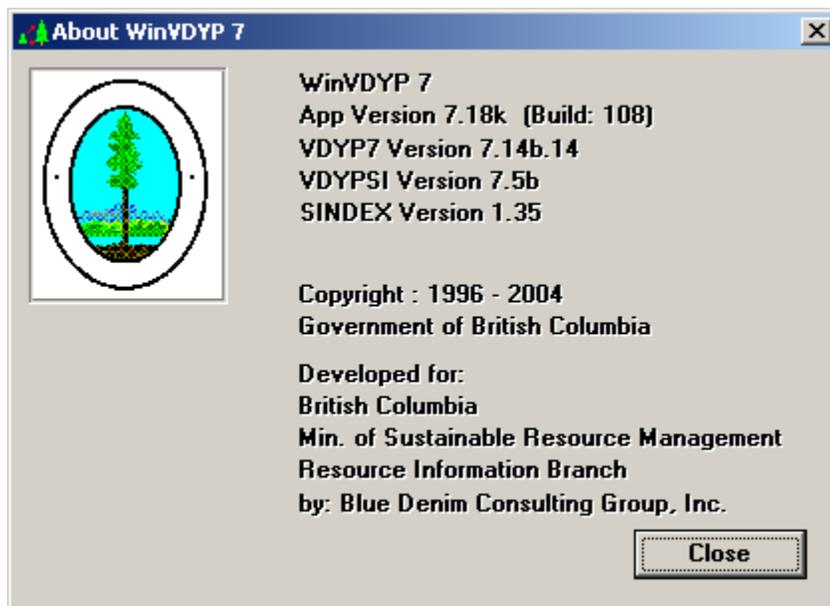
Figure 2-24: About WinVDYP Window

This window should probably be updated to *Ministry of Forests and Range*

4. Using WinVDYP7

4.1 Model Parameter Selection Panes

The *Model Parameter Selection* window consists of five panes, each containing a different set of properties that can be set and manipulated. You use the *Model Parameter Selection* panes to create or modify tables. You can select *File*, *New* or *Edit*, *Properties* to display the first of these panes. For details on the various ways you can initiate the menu commands, see the previous section.

The properties found on each pane are logically connected, and the panes always appear in the same order. You can move back or forward between the panes in the set. These five panes are described in logical order in this section.
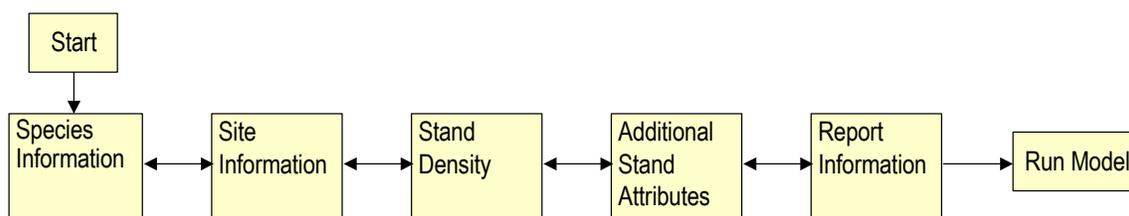
Figure 3-1: Model Parameter Selection Pane Navigation

4.2 Common Navigation Buttons

All of the panes have some commands in common. These commands are described here to avoid repetition.

- **Cancel Button**: closes the *Model Parameter Selection* panes. None of the changes you may have made to the properties are retained and the table is not recalculated.
- **Set As Default Button**: this button causes the current set of properties in each of the panes to be saved as the default set. This means that every time you create a new table from that point on, it will be created with those properties rather than the ones that were installed with WinVDYP7.

> The *Set As Default Button* feature is handy if you want to create a number of similar stands with perhaps only one different property. You could set the properties for the first stand, save them as the default, and then with each new table you create, you simply change the one or two properties for the next stand.

- **Prev Button**: displays the previous pane in the series.
- **Next Button**: displays the next pane in the series.

- **Run Model Button**: causes the table to calculate and display the results in a window according to the properties you selected. If you are running a new table, a new table window is opened to contain the results. If you have adjusted the properties of the current table, the results replace the previous results in the table window.

4.3 Species Information Pane
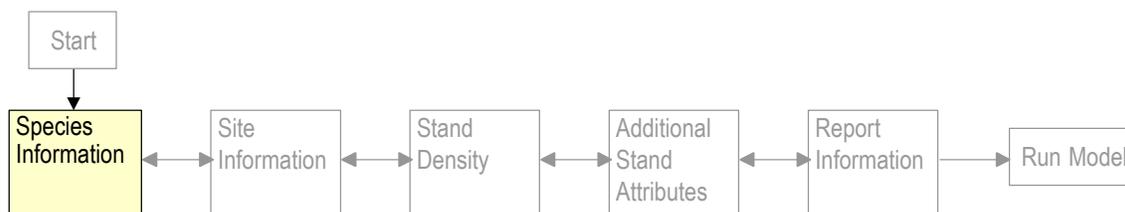
Figure 3-2: Model Parameter Selection – Species Information

The *Species Information* pane allows you to set the species composition of the stand.

Figure 3-3: Species Information Pane

You can set up to six tree species as well as the relative percents by volume or basal area of each species. The percents must always total up to 100.0%, if they don't an error message will pop up. To change any of the species:

1. To display a dropdown menu of all available species, click on the species box you wish to change.

2. A selection of all available species will be displayed as in Figure 3-4. Use the arrow keys or the scroll bars to select the species you wish.
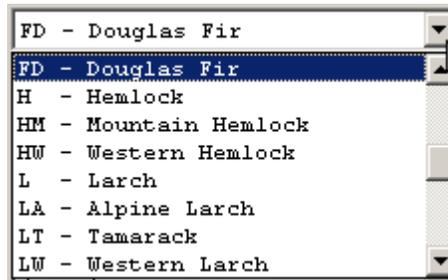
Figure 3-4: Available Species List

To change the corresponding species percents:

1. Click on the percent field you wish to change or use the tab key until you reach the appropriate field.

2. Type in the new percent directly or use the up/down arrows at the right edge of the field to increase or decrease by five percent increments.

When you have finished composing the stand, check that:

- Each species selected has a percent greater than 0;
- The percentages are in descending order;
- Each percent greater than zero has a corresponding species; and,
- The species percents sums to 100%.

If any of these conditions do not apply, you will get an error message when you try to move on to the next pane.

The available species presented include 32 common species codes. Generally, the species with the highest percent will be used to select the site index function used to project stand height as shown in the yield tables. In the case of a tie for leading species, WinVDYP7 will select one and display it in the Site Species window. If two or more species are leading (highest and the same percentage), the species listed first is used for site index determination. Second (and subsequent) species use this same selected function. Heights for these non-leading species may be adjusted when calculating volumes to reflect trends found in natural stands.

To adjust other properties of the model:

- Click the *Species % Derived By* buttons, or click to place your cursor in the *Sp Group*, *Sp Group %* and *Site Species* boxes and type new values.

To save your property adjustments, click the **Set as Default** button and the next time you display this screen your entries will display as the default.

Click the **Next** button at the bottom of the screen to proceed to the *Site Information* pane shown below.

SP Group (Species Group) – the level of species aggregation for which the per-hectare yields are predicted in VDYP7.

SP Group % (Species Percent) – percentage of the stand that the corresponding species group comprises.

Site Species – species within the corresponding species group(s) used to determine the site index.

Species % Derived By – On input tree species percentage is based either on relative gross volume or BA above a specified diameter limit. Selecting species by volume restricts density input to Crown Closure (old FIP inventory standard). The alternative choice allows BA and TPH to be supplied (VRI inventory standard). In both cases the output species percentage will be by BA.

4.4 Site Information Pane

Figure 3-5: Model Parameter Selection – Site Information

The *Site Information* pane allows you to set the stand characteristics such as location and site quality of the stand, by species and apply volume modifiers to the generated volumes (where are the volume modifiers?). Figure 3-6 has an example of this pane.

Figure 3-6: Site Information Pane

1. Adjust the *BEC Zone* by clicking the down arrow and selecting your choice.
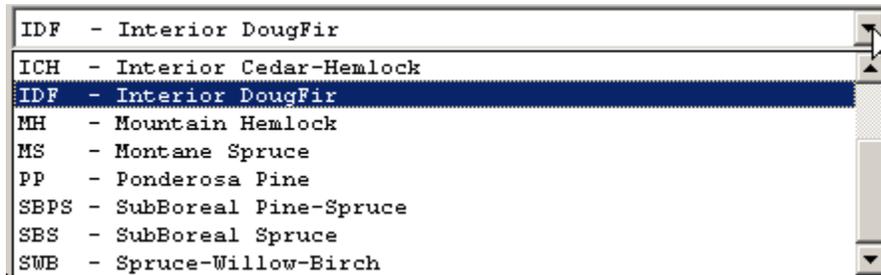
Figure 3-7: BEC Zone Dropdown

2. *Site Species* shows the tree species in the stand for the species group with the highest percent composition. Click the down arrow to show the site species for the second species group if one is present.

3. *Site Index Curve*. The Ministry default curve for the site species. This field is populated automatically.

4. For the first *Site Species*, you can choose to use a *computed site index*, or a *supplied site index*. Site information for the second site species, if applicable, can be entered using the same method selected for the first.

   ### Computed Site Index

   To use a computed site index:
   1. Ensure the *Computed* button is selected (filled in) by clicking on it. This will enable the *Age* and *Height* fields and disable (gray out) the *BHA 50 Site Index*.
   2. Move to the *Age* field by clicking on it or using the tab key until it becomes the current field.
   3. Choose *Age* or *Breast*. If you chose *Age*, enter the age in years at which the height was measured. This is measured in total years and refers to the total amount of time the stand has been growing from a seed. If you chose *Breast* enter the amount of time the stand has been growing since it reached breast height (1.3 m).
   4. Move to the *Height* field by clicking on it or using the tab key until it becomes the current field.
   5. Enter the height of the stand when it was at the age supplied in step 3. This height is in meters.
   6. You will notice that as you make changes to the values in the age and height fields, the *Height at BHA50* automatically changes as well. This value automatically changes to the equivalent height implied by the age/height pair for the current species composition.

By selecting different float values, you can supply a different pair of site input values and have the third "floating" value computed automatically.

The following fields affect the value in the *Height at BHA 50* field:
- Leading Species (from Species pane)

- Age from Calculated fields.
- Height from Calculated fields.

Making changes to any of these fields while using *Calculated Site Index* values will cause the *Height at BHA 50* to be recalculated.

Supplied Site Index

In order to use the *Supplied Site Index* you:
1. Ensure the *Supplied* radio button is selected (filled in) by clicking on it. This will enable the *Height at BHA 50* field to the right of it and disable (gray out) the two fields to the right of the *Calculated* radio button.
2. Move to the *Height at BHA 50* field by clicking on it or using the tab key until it becomes the current field.
3. Enter the *Site Index* in meters.

Supplying a *Site Index* value is important if you know the potential growth rate for a particular stand based on historical data or nearby stands but no stand has yet been planted.

4.5 Stand Density Pane
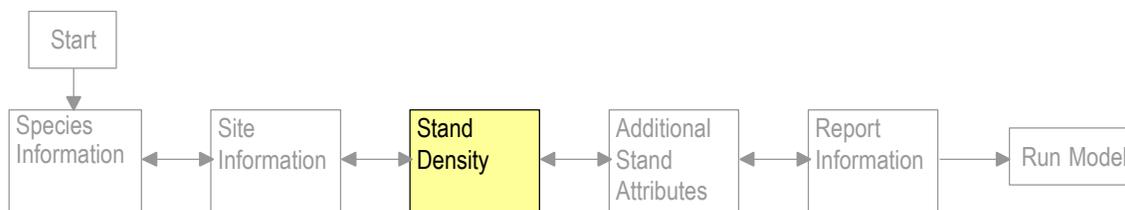
Figure 3-8: Model Parameter Selection – Stand Density

The *Stand Density* pane allows you to enter stand density characteristics, including the % *Stockable Area*, *Basal Area*, *TPH,* and *Crown Closure.* The *Min DBH Limit* field cannot be edited. The *Current Diameter* indicates the quadratic mean dbh calculated from the supplied *Basal area* and *TPH*.

Figure 3-9: Stand Density Pane This pane now includes *Current diameter* so the figure should be updated

1. Click the up/down arrows to adjust the *% Stockable Area*. Percentages are selectable in increments of 5, or you can click inside the box and type any percentage. If you do not select a percentage, a default will be computed when the model is run.

2. If you selected *Species % by Basal Area* in the *Species Information* pane, and *Computed Site Index* on the *Site Information* pane, you can enter the *Basal Area,* and the *TPH* (Trees per Hectare) at the minimum DBH limit indicated. Otherwise, these fields are grayed out.

3. If you selected to derive the *Species % by Volume* in the *Species Information* pane, and selected a *Computed Site Index* on the *Site Information* pane, you can specify the *Crown Closure*. Otherwise, these fields are grayed out. If you do not know the crown closure of the stand, it is recommended that a value of 0.0 be entered. This will invoke a default crown closure as given in Appendix D.

4.6 Additional Stand Attributes
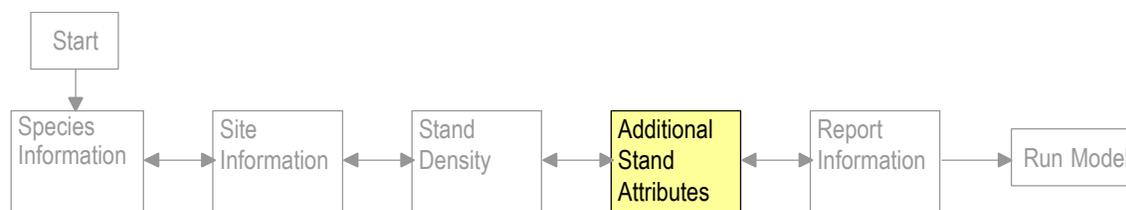
Figure 3-10: Model Parameter Selection – Additional Stand Attributes

In the *Additional Stand Attributes* pane, you can use computed values, or supply values for *Lorey Height* and *Whole Stem Volume*, *Basal Area* and *Whole Stem Volume*, *Close Utilization Volume*, *Close Utilization Net Decay Volume* and *Close Utilization Net Decay*, *Waste Volume* by the units indicated.

Figure 3-11: Additional Stand Attributes Pane

1. The default for this page is to use computed values.

2. If you choose to supply values click the *Supply Values* radio button the additional stand attributes will become editable fields. To adjust any value, double click in the field and the current value will be highlighted, at which point you can type in a new value.

4.7 Report Information Pane

Figure 3-12: Model Parameter Selection – Report Information

The *Report Information* Pane enables you to set the information you wish to see in the table output. You can set the *Age Range*, *Volumes Reported*, and the *Minimum DBH Limit by Sp Group;* choose whether you wish to see the *Computed MAI* or *Species Composition*, and add a table name.

Figure 3-13: Report Information Pane

1. Move to the *Age Range* field by clicking the mouse on the field, or by pressing the tab key until the field becomes active. The *Age Range* field sets the range of years and what interval to list them in when the table window is displayed.

2. Edit the field by typing in a new starting age, finishing age or age increment or by clicking on the up or down arrow buttons to scroll up and down.

3. Select the *Volumes Reported* category by clicking the mouse to add or delete check marks. Multiple categories can be selected.

4. Select the *Include In Report* category by clicking the mouse to add or delete check marks. Multiple categories can be selected.

5. Select the *Min DBH Limit by SP Group* categories by clicking the mouse on the radio buttons. One category in each column can be selected. The number of columns that display for selection depends on settings in the VDYP.INI file.

4.8 Running the Model

Figure 3-14: Model Parameter Selection – Run Model

After you are finished defining properties for the stand, click the **Run Model** button to generate the table.

4.9 Using Tables

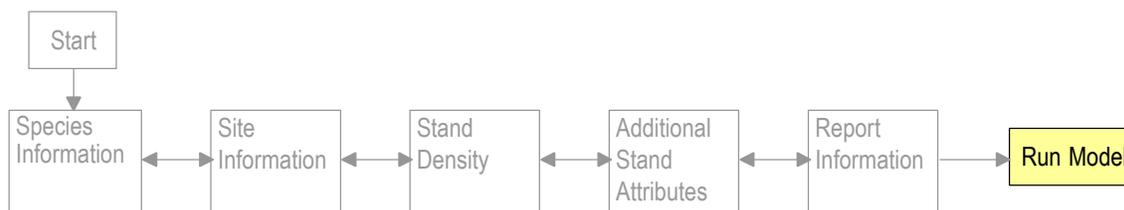Tables provide growth information for height, diameter, volume and mean annual increment (MAI) information for a stand over time. They can also provide species composition as a percentage of total basal area for the stand.

The resulting information is displayed in a formatted table with a header and follow-up information following. The next section describes this format in detail.

You can use these results for simple informative uses, to copy into a spreadsheet, where it can be graphed for a visual representation of the data, or to cut and paste into a word processor or spreadsheet for later analysis.

This section describes in detail how tables are generated and saved, and the changes you can make to the table properties.

4.9.1 Format Description

Every table is formatted the same with minor variations no matter which choices you make for the properties that generated it. Figure 3-15 shows a typical table and points out each of the important parts to take note of.

There are a number of major sections in each table, some of which may or may not appear in any particular display of the report depending on the properties you selected.

- *Stand Composition*: this top most section of the table always appears and summarizes the species composition of the stand. The species are listed using their full names and percents refer to supplied values on the species information pane.

  In Figure 3-9, Douglas Fir comprises 85% of the volume at any particular age.
- *Tot Age – Years since germination*. Usually used with reference to stands of natural origin
- *Site Ht (Site Height)* – Average height in meters for site trees of a specified tree species in a stand, typically the species with the greatest basal area. Also the stand height predicted from a site index curve at given age.
- *Lorey Height* – Height in meters of the tree of average basal area. Typically above a given diameter limit, for all species combined or for an individual species.
- *Quad Std DIA (cm):* This entry presents an estimate of the *quadratic mean stand diameter* measured outside the bark at breast height in centimeters. That is, the diameter of the tree of average basal area.
- *BA (m**2/ha) – Basal Area.* Total cross sectional area of all living trees measured outside bark at breast height measured in square meters per hectare (m^2/ha) above a specified diameter limit.
- *TPH (Trees per Hectare)* – total number of living trees per hectare above a specified diameter limit.

- *Whole Stem VOL (m**3/ha)* – The entire tree's stem volume.
- *Computed Results*: the predicted height, diameter, volume and MAI calculations for the utilization levels and age range you selected in the properties for this table. These computed values are displayed and formatted as you see them in Figure 3-15 by default. If you wish to change the defaults, modify the *format patterns* in the VDYP.INI file. For example, a format of ##0.00 produces a field width of six characters with two decimals of precision.
- *Notes*: displays messages that you should take into account when interpreting the results in the table. There may or may not be any notes displayed, depending on the properties you have defined for this stand. In some cases, there may be several of them.
- In Figure 3-15, this particular note indicates that actual percent stockable area used was 77%.
- *Table Properties*: lists all the property settings that were used to compute this table. This section is provided in order to allow easy reproduction of the results. The properties are listed in two columns and completely describe the stand. Some properties may not appear in this section if they were not selected.

Just a note on the example. The BA is creeping along, growing at about 0.2m2/ha per decade up to age 100 then starts booming at 2m2/ha per decade. It seems to be a function of the TPH which declines to age 100, then increases up to age 130 and then starts a slow decline again. Some trees must be crossing the size threshold to cause the increase in TPH so I expected to see a decline in the Dbhq growth but it seems to be pretty steady.
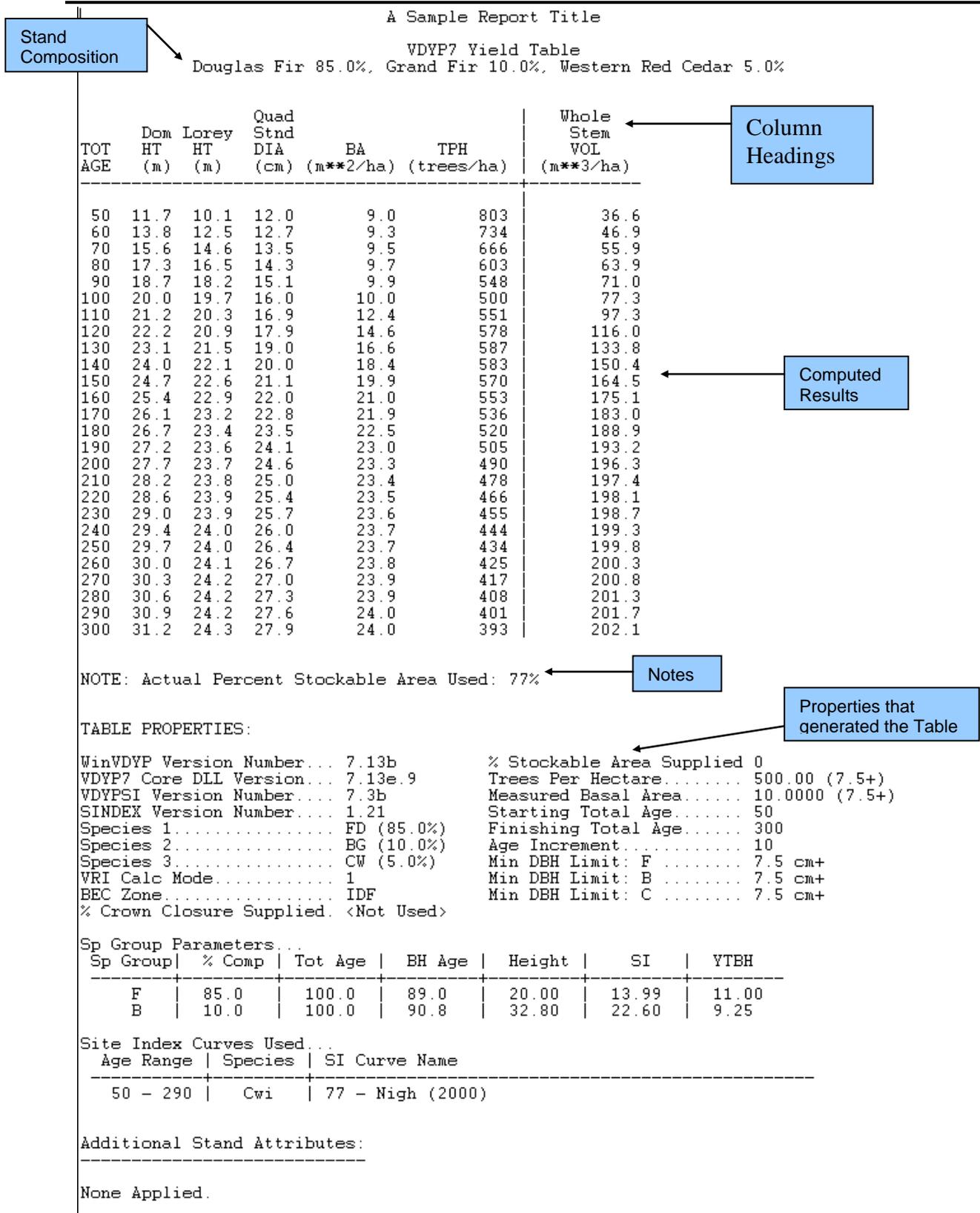
A Sample Report Title

VDYP7 Yield Table
Douglas Fir 85.0%, Grand Fir 10.0%, Western Red Cedar 5.0%

Stand
Composition

Column
Headings

TOT AGE	Dom HT (m)	Lorey HT (m)	Quad Stnd DIA (cm)	BA (m**2/ha)	TPH (trees/ha)	Whole Stem VOL (m**3/ha)
50	11.7	10.1	12.0	9.0	803	36.6
60	13.8	12.5	12.7	9.3	734	46.9
70	15.6	14.6	13.5	9.5	666	55.9
80	17.3	16.5	14.3	9.7	603	63.9
90	18.7	18.2	15.1	9.9	548	71.0
100	20.0	19.7	16.0	10.0	500	77.3
110	21.2	20.3	16.9	12.4	551	97.3
120	22.2	20.9	17.9	14.6	578	116.0
130	23.1	21.5	19.0	16.6	587	133.8
140	24.0	22.1	20.0	18.4	583	150.4
150	24.7	22.6	21.1	19.9	570	164.5
160	25.4	22.9	22.0	21.0	553	175.1
170	26.1	23.2	22.8	21.9	536	183.0
180	26.7	23.4	23.5	22.5	520	188.9
190	27.2	23.6	24.1	23.0	505	193.2
200	27.7	23.7	24.6	23.3	490	196.3
210	28.2	23.8	25.0	23.4	478	197.4
220	28.6	23.9	25.4	23.5	466	198.1
230	29.0	23.9	25.7	23.6	455	198.7
240	29.4	24.0	26.0	23.7	444	199.3
250	29.7	24.0	26.4	23.7	434	199.8
260	30.0	24.1	26.7	23.8	425	200.3
270	30.3	24.2	27.0	23.9	417	200.8
280	30.6	24.2	27.3	23.9	408	201.3
290	30.9	24.2	27.6	24.0	401	201.7
300	31.2	24.3	27.9	24.0	393	202.1

Computed Results

NOTE: Actual Percent Stockable Area Used: 77%

Notes

Properties that generated the Table

TABLE PROPERTIES:

WinVDYP Version Number... 7.13b	% Stockable Area Supplied 0
VDYP7 Core DLL Version... 7.13e.9	Trees Per Hectare....... 500.00 (7.5+)
VDYPSI Version Number.... 7.3b	Measured Basal Area...... 10.0000 (7.5+)
SINDEX Version Number.... 1.21	Starting Total Age....... 50
Species 1............... FD (85.0%)	Finishing Total Age...... 300
Species 2............... BG (10.0%)	Age Increment........... 10
Species 3............... CW (5.0%)	Min DBH Limit: F .... 7.5 cm+
VRI Calc Mode........... 1	Min DBH Limit: B .... 7.5 cm+
BEC Zone................ IDF	Min DBH Limit: C .... 7.5 cm+
% Crown Closure Supplied. <Not Used>	

Sp Group Parameters...

Sp Group	% Comp	Tot Age	BH Age	Height	SI	YTBH
F	85.0	100.0	89.0	20.00	13.99	11.00
B	10.0	100.0	90.8	32.80	22.60	9.25

Site Index Curves Used...

Age Range	Species	SI Curve Name
50 - 290	Cwi	77 - Nigh (2000)

Additional Stand Attributes:

None Applied.

Figure 3-15: Report Contents

4.9.2 Modifying

Once a table is displayed, you may wish to make changes to the table's properties.

To activate the *Model Parameter Selection* window for a particular table, perform the following steps:

1. Ensure the table you wish to make changes to is the active window.

2. Right click on the *table* window, or click **Edit, Properties** on the menu bar to display the first pane of the *Model Parameter Selection* window.

3. Advance through the *Model Parameter Selection* windowpanes, making the necessary changes to the properties for this window (see Figure 3.1).

4. At the last pane, click on the **Run Model** button.

5. The table will be updated to show the results of your properties selections.

4.9.3 Saving

You can save tables in WinVDYP7 format, or as text files. Tables can be saved at any time. If you save in WinVDYP7 format, you can open the table again at a later time to continue working with it.

If you save a table as a text file, you will not be able to open it using WinVDYP7.

4.9.3.1 Saving as a WinVDYP7 File

To save the table on your hard drive, LAN or to disk:

1. Ensure the table you wish to save is the active window.

2. Save the file in one of three ways:
   - - Press the **Ctrl-S** key combination to save the file directly.
   - - Click on the **Save** tool bar button.
   - - Click on the **File** menu, and then click on the **Save** or **Save As** menu items.

3. If the file has not been previously been saved or you have selected *Save As*, a standard file window appears and asks you to point to a save location, and enter the table filename.

☞　　The file extension will default to .TBL. Do not change this default if you wish to reopen the table using WinVDYP7.

4. After selecting the location and file name, click the **OK** button and the file will be saved.
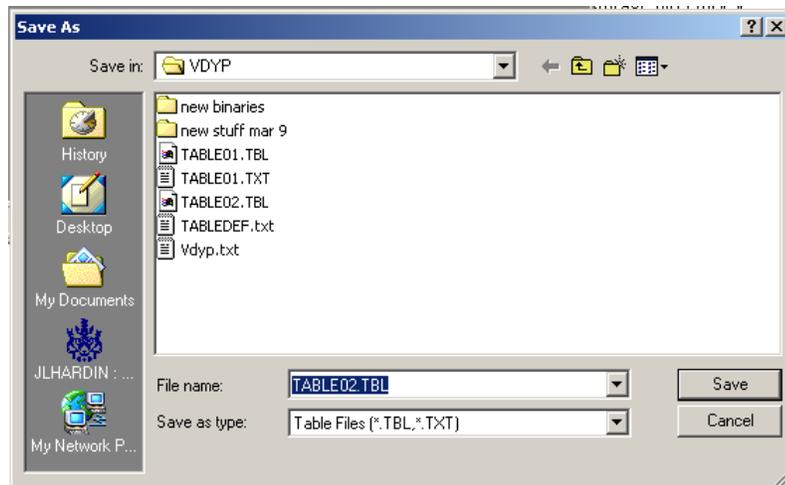
Figure 3-16: File Save / Save As Window

4.9.3.2 Saving As a Text File

☞   If you save a table as a text file, you will not be able to open it using WinVDYP7.

You may wish to store a table as a text file so you can read the report without having to use the WinVDYP7 application. You can open text files in different applications such as Notepad and Windows Excel and annotate.

To save the table as a text file, follow the same instructions as given above for saving the table in WinVDYP7 format. Note that the file will save with the extension .TXT. See Figure 3-17.
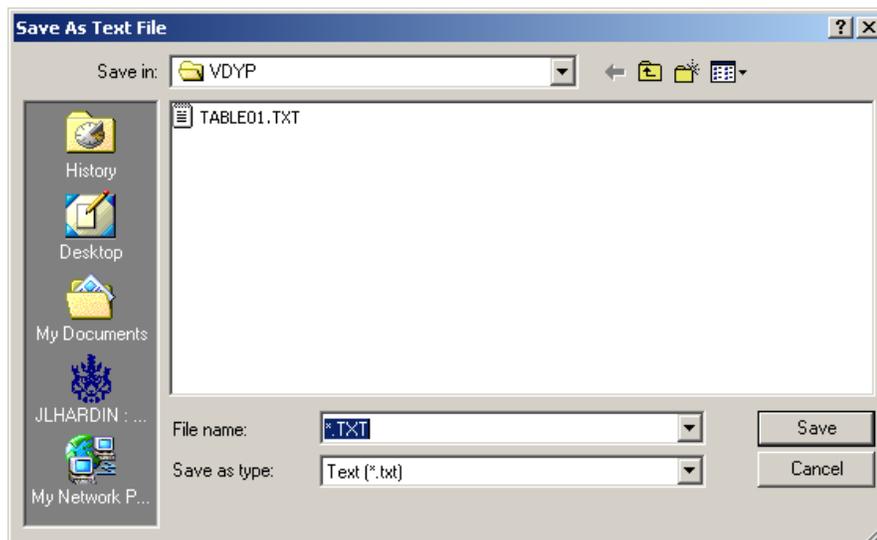
Figure 3-17: Save As Text File Window

4.9.4 Printing

This menu item will print the current table. This command is only available when you have a table open.
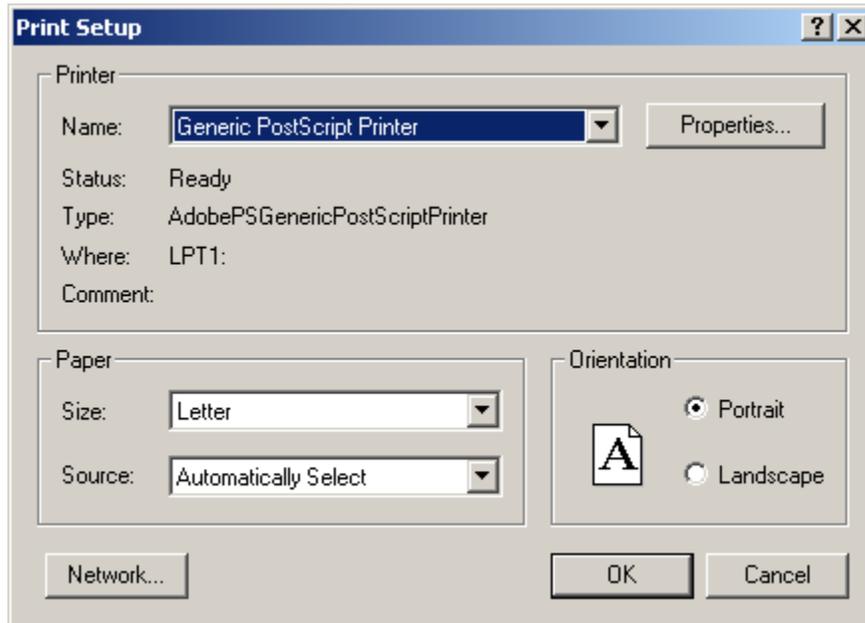
To print a table:

Figure 3-18: Print Setup Window

1. Ensure the table you want to print is the active window.

2. Print the file in any of the following four ways:

   - Click the **File** menu, then click the **Print** menu item.
   - Press **Alt-F** to activate the *File* menu, then press **P** to select the *Print* menu item.
   - Press **Ctrl-P** to directly activate this command without having to go through the *File* menu.
   - Click on the **Print** toolbar button.

3. Your pc's standard *Print Setup* window will appear (see Figure 3-18) and you can select certain properties about the print job such as the destination printer, or whether to print in portrait or landscape formats.

4. Once you have selected the print job properties, click on the **OK** button to send the file to print.

If you prefer not to print the file, click the **Cancel** button to stop the operation.

Appendix A – Processing Messages

This section describes the processing messages that can be generated by WinVDYP7 and the other interfaces. These messages may be generated if you attempt to perform some activity or enter some data that WinVDYP7 says is an error. The errors pop up in a window to inform you of the problem. The error messages listed below are in alphabetic order.

This table lists each error generated, provides a full explanation of the cause, and suggests a way to fix the problem to stop the error from occurring in the future.

Message	Severity	Cause	Resolution
Actual Percent Stockable Area Used: xx.x%	Warning	The Percent Stockable Area actually used was not specified and had to be calculated.	Explicitly supply the Percent Stockable Area parameter.
An attempt to obtain projected values from VDYP7CORE for the stand age xxx failed.	Error	A request for projected values at a particular age failed.	Ensure the requested age is valid.
An error occurred processing the FIPSTART model. VDYP7CORE return code: 'xxx'	Error	Some aspect of the input data prevented the FIPSTART model from converting the stand into a VDYP7 stand.	Check the return codes for the error 'FIP Model Generated Error Message: xxx' to determine resolution.
An error occurred processing the VRISTART model. VDYP7CORE return code: ''xxx'	Error	Some aspect of the input data prevented the VRISTART model from converting the stand into a VDYP7 stand.	Check the return codes for the error 'VRI Model Generated Error Message: xxx' to determine resolution.
An error occurred writing the VRISTART polygon record. VDYP7CORE return code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Attempt to process an unrecognized Start Model	Fatal	Internal error indicating a corrupt polygon descriptor.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.

Message	Severity	Cause	Resolution
BA 12.5cm+ (xx.xxx) exceeds BA 7.5cm+ (yy.yyy). No adjustments will take place.	Warning	Stand adjustments were requested but BA 12.5cm+ exceeds BA 7.5cm+.	Ensure BA 7.5cm+ is at least as great as BA 12.5cm+.
BA 12.5cm+ not supplied. No adjustments will take place.	Warning	Stand adjustments were requested but BA 12.5 cm+ adjustment was not supplied.	Supply an explicit BA 12.5cm+ in order to allow Stand Adjustments to take place.
BA 7.5cm+ not supplied. No adjustments will take place.	Warning	Stand adjustments were requested but BA 7.5 cm+ adjustment was not supplied.	Supply an explicit BA 7.5cm+ in order to allow Stand Adjustments to take place.
Basal Area and Trees per HA computed using Default CC of xx.x%	Warning	Basal Area and/or Trees per Hectare had to be inferred from the Crown Closure	Explicitly specify the Basal Area and Trees per Hectare.
BEC Zone was not supplied.	Error	The BEC Zone was not supplied. This is a required input for the VRISTART process.	Specify a valid BEC Zone.
CC was not supplied. No leading species exists to determine a default Crown Closure.	Error	CC was not supplied and not enough information was available to compute a default value.	Supply an explicit Crown Closure or supply a leading species and BEC zone.
CC was not supplied. Using a default CC of xx.x% for leading species 'yy'	Warning	CC was not supplied and a default value was computed based on species and BEC.	Supply an explicit Crown Closure.
Estimated SI applied from older species 'xx' to younger species 'yy'	Info	An estimated Site Index value was applied from an older (30 years or older) leading species to a younger secondary species (less than 30 years total age).	This is normal processing. There is nothing to be done.

Message	Severity	Cause	Resolution
FIP Model Generated Error Message: xxx	Error	FIPSTART failed to convert the stand. Possible values for xxx are: -100 Indicates input data was expected but not available. -12 Low predicted Basal Area. -11 Site index was not supplied. -10 YTBH was not available. -4 Height was too low.	For the following values: -100 Internal error. Bundle up your VDYP.INI, TABLEDEF.INI, WinVDYP version number and details of the model you were trying to run and send to technical support. -12 Increase the parameters influencing basal area. These include age, height, and site index. -11 Ensure a species occurs with an associated age and height is specified. -10 Ensure a species occurs with an associated age and height is specified. -4 Increase the height of the species or the assigned site index.
FIP Model was specified but was not actually run.	Fatal	The defined model requires that FIPSTART be used to convert the stand into a VDYP7 stand for projection. However an internal error prevented FIPSTART from being started.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
For species 'xxx', the associated reporting utilization level is invalid: yyy	Fatal	Internal error indicating a corrupt polygon descriptor.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Height xx.x at Projection Age yyy is too short to generate yields for species 'zz'	Info	A species was too short for projections to occur.	Increase the site index or height of the species in question.
Invalid Start Model returned from V7Ext_InitialProcessing ModeToBeUsed	Fatal	Internal error indicating a corrupt polygon descriptor.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Layer Species Array has not been associated with this polygon layer.	Fatal	Internal error indicating a corrupt polygon descriptor.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.

Message	Severity	Cause	Resolution
No yields produced. Sufficient height was not achieved.	Warning	The stand did not reach a merchantable size over the entire age range requested in the table. No projected volumes are produced.	Increase the productivity of the stand through the Site Index and Stand Density parameters or change the age range of the generated table.
Primary Layer does not contain a Stand Description and is labeled with Non-Productive code: 'xxxx'.	Error	An attempt was made to project a non-productive polygon with no stand description	Supply an explicit stand description and do not flag the stand as non-productive.
Projected data for species 'xx' was not generated at stand age yyy	Info	A species dropped out of the stand as a projection went forward.	Increase the relative percent of the species to keep it in the stand for longer periods.
Projected data for the layer was not generated at stand age xxx	Info	All species in the stand became non-merchantable as the projection went forward.	Increase the productivity of the stand.
Secondary SP0 'xx' height yy.y at age zz.z suppressed next to tall lead SP0.	Warning	A tree species less than Breast Height was encountered next to the lead species 6m or taller.	Set secondary tree heights to be either not supplied (-9.0) or greater than breast height (1.3m).
Species array for Layer 'x' has not been allocated.	Fatal	Internal error indicating a corrupt polygon descriptor.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Species Reporting Level array not assigned to the Polygon Handle.	Fatal	Internal error indicating a corrupt polygon descriptor.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Species 'xx' duplicates a species already in layer 'xx'	Error	An attempt was made to supply two identical species into the stand.	Combine the two species and submit the stand for processing.
Stand description not possible after 80 years of projection. VDYP7CORE return code: 'xxx'	Warning	The stand productivity is so low that a merchantable volume could not be determined.	Increase the stand productivity by increasing the site index.

Message	Severity	Cause	Resolution
Unable to locate a Primary Layer	Error	The projection process could not determine a Primary Layer for projection.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to obtain actual FIPSTART/VRISTART processing info. VDYP7CORE Error code returned: xxx	Error	Internal error indicating a corrupt polygon descriptor.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to Project Stand over age range: xxx to yyy.	Error	An age range was requested but the projection failed over that age range.	Ensure the age range is valid.
Unable to retrieve initial VRIADJST Adjustment Seeds. VDYP7CORE Return Code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write FIPSTART End of Layers marker record. VDYP7CORE return code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write FIPSTART End of Species marker record. VDYP7CORE return code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write FIPSTART Layer Record. VDYP7CORE return code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.

Message	Severity	Cause	Resolution
Unable to write out FIPSTART Polygon record. Return Code from VDYP7CORE: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write out FIPSTART species record for the following species group: 'xxx'	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write the VRISTART Layer record. VDYP7CORE Return Code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write VRIADJST Adjustment record. VDYP7CORE Return Code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write VRIADJST End of Adjustments marker record. VDYP7CORE Return Code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write VRISTART End of Layer marker record. VDYP7CORE return code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write VRISTART End of Site Index marker record. VDYP7CORE return code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.

Message	Severity	Cause	Resolution
Unable to write VRISTART End of Species marker record. VDYP7CORE return code: xxx	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write VRISTART Site Index record for species group 'xxx'	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unable to write VRISTART Species record for species group 'xxx'.	Error	Internal error indicating a File I/O problem of some kind.	Internal error. Ensure sufficient disk space exists in the VDYP7 installation drive and if so, bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
Unknown Growth Model (not FIP/VRI) was specified.	Fatal	An internal error prevented WinVDYP from classifying the stand properties.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
V_CU 12.5cm+ (xxxx.xxx) exceeds WSV 12.5cm+ (yyyy.yyy). No adjustments will take place.	Warning	Stand adjustments were requested but Close Utilization Volume 12.5cm+ exceeds Whole Stem Volume 12.5cm+.	Ensure Whole Stem Volume 12.5cm+ is at least as great as Close Util Volume 12.5cm+.
V_CU 12.5cm+ not supplied. No adjustments will take place.	Warning	Stand adjustments were requested but Close Util Volume 12.5 cm+ adjustment was not supplied.	Supply an explicit Close Util Volume 12.5cm+ in order to allow Stand Adjustments to take place.
V_D 12.5cm+ (xxxx.xxx) exceeds V_CU 12.5cm+ (yyyy.yyy). No adjustments will take place.	Warning	Stand adjustments were requested but Decay Volume 12.5cm+ exceeds Close Util Volume 12.5cm+.	Ensure Decay Volume 12.5cm+ is at least as great as Close Util Volume 12.5cm+.

Message	Severity	Cause	Resolution
V_D 12.5cm+ not supplied. No adjustments will take place.	Warning	Stand adjustments were requested but Decay Volume 12.5 cm+ adjustment was not supplied.	Supply an explicit Decay Volume 12.5cm+ in order to allow Stand Adjustments to take place.
V_DW 12.5cm+ (xxxx.xxx) exceeds V_D 12.5cm+ (yyyy.yyy). No adjustments will take place.	Warning	Stand adjustments were requested but Decay, Waste Volume 12.5cm+ exceeds Decay Volume 12.5cm+.	Ensure Decay, Waste Volume 12.5cm+ is at least as great as Decay Volume 12.5cm+.
V_DW 12.5cm+ not supplied. No adjustments will take place.	Warning	Stand adjustments were requested but Decay, Waste Volume 12.5 cm+ adjustment was not supplied.	Supply an explicit Decay, Waste Volume 12.5cm+ in order to allow Stand Adjustments to take place.
VRI Model Generated Error Message: xxx	Error	VRISTART failed to convert the stand. Possible values for xxx are: -100 Indicates input data was expected but not available. -99 Unknown reason for failure. -14 Not merchantable after 80 years -13 Low predicted Basal Area. -12 BEC Zone missing or Bad -9 Crown Closure missing. -8 Species percents do not sum to 100% -7 Basal Area or Trees Per Hectare missing. -6 Missing dominant height. -5 Missing Stand Age. -4 Missing Site Index	For the following values: -100, -99, -12, -9, -8, -7, -6, -5, -4 These values indicate an internal error within WinVDYP. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support. -14 Increase the productivity of the site through age, height, site index modifications. -13 Increase the stand density parameters predicting basal area. -3 Adjust Age, Height or SI so that the triplet falls within an acceptable range.

Message	Severity	Cause	Resolution
		-3 The combination of Age, Height and SI was inadequate.	
VRI Model was specified but was not actually run.	Fatal	The defined model requires that VRISTART be used to convert the stand into a VDYP7 stand for projection. However an internal error prevented VRISTART from being started.	Internal error. Bundle up VDYP.INI, TABLEDEF.INI, WinVDYP7 version number, and details of the model you were trying to run and send to technical support.
WSV 12.5cm+ (xxxx.xxx) exceeds WSV 7.5cm+ (yyyy.yyy). No adjustments will take place.	Warning	Stand adjustments were requested but Whole Stem Volume 12.5cm+ exceeds Whole Stem Volume 7.5cm+.	Ensure WSV 7.5cm+ is at least as great as WSV 12.5cm+.
WSV 12.5cm+ not supplied. No adjustments will take place.	Warning	Stand adjustments were requested but WSV 12.5 cm+ adjustment was not supplied.	Supply an explicit WSV 12.5cm+ in order to allow Stand Adjustments to take place.
WSV 7.5cm+ not supplied. No adjustments will take place.	Warning	Stand adjustments were requested but WSV 7.5 cm+ adjustment was not supplied.	Supply an explicit WSV 7.5cm+ in order to allow Stand Adjustments to take place.
Yields are not predicted prior to age xxx.x	Warning	The stand did not reach a merchantable size over the entire age range requested in the table. Projected volumes prior to this age are suppressed.	Increase the productivity of the stand through the Site Index and Stand Density parameters or change the age range of the generated table.

Appendix B – Revision History

Version	Date	Description
1.0	April 2004	Version 1.0 created, reviewed and approved for distribution
2.0	January 2006	Version 2.0 created, reviewed and approved for distribution

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