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Guide To The

# Lease Vs. Buy Analyzer

By Denver Tax Software, Inc.

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# Contents

<b>Overview</b>	<b>1</b>
Why Use This Program?.....	1
<b>Installing and Starting</b>	<b>2</b>
System Requirements .....	2
Installation .....	2
Installing To A Single Machine.....	2
Network Installation .....	3
Starting the DTS Lease vs. Buy Analyzer .....	3
<b>Analyzing Leasing and Buying</b>	<b>4</b>
General Concept .....	4
Analysis Methods .....	4
Assumptions, Assumptions, Assumptions.....	5
How Long Is The Asset Held And How Is It Disposed Of.....	5
Why Is There A Year 0?.....	5
When Are Taxes Paid .....	6
Present Value - Why Bother? .....	6
<b>Using The Lease vs. Buy Analyzer</b>	<b>7</b>
Getting Started .....	7
Entering Information .....	7
The Main Screen.....	8
File.....	8
View .....	9
Inputs .....	9
Options .....	10
Help .....	10
<b>The Tool Bar</b>	<b>11</b>
What is the Tool Bar?.....	11
Tool Bar Buttons.....	11
 New .....	11
 Open.....	11
 Save .....	11
 Print .....	11
 Display .....	12
 General Inputs.....	12

	Lease Inputs .....	12
	Purchase Inputs.....	12
	Business Inputs .....	12
	Help.....	12

**Inputs 13**

General Inputs.....	13
Name of Buyer .....	13
Optional Second Line .....	13
Description of Asset .....	13
Cost of Capital.....	14
Business Use Percent.....	14
Ordinary Marginal Tax Rate.....	14
Marginal Tax Rate On Sale Of Asset .....	14
Buttons .....	14
Lease Inputs.....	15
Non-Refundable Lease Deposit.....	15
Deduct Non-Refundable Deposit.....	15
Refundable Lease Deposit .....	15
Sales Tax Upon Signing Lease .....	16
Normal Lease Payment.....	16
Number Of Lease Payments .....	16
Frequency Of Lease Payments .....	16
Miscellaneous Annual Lease Expense.....	16
End Of Lease Expense.....	16
Value Of Asset At End Of Lease.....	16
Lease Option Price .....	17
Buttons .....	17
Purchase Inputs.....	18
Price Of Asset.....	18
Sales Tax On Purchase .....	18
Down Payment .....	18
Term Of Loan In Years .....	18
Frequency Of Loan Payments .....	19
Miscellaneous Annual Purchase Expense .....	19
Annual Loan Interest Rate.....	19
Interest Deduction Percent .....	19
Buttons .....	19
Business Inputs .....	20
Is This An Automobile? .....	20
Is This Listed Property?.....	20
Depreciable Life .....	21
Depreciation Method .....	21
Use Section 179? .....	21
Section 179 Amount.....	21
Buttons .....	21

**Understanding the Lease vs. Buy Analyzer Reports 23**

Deciding Which Reports To View Or Print.....	23
Inputs Report .....	24
Present Value Explanation.....	24

Loan Amortization Schedule .....	24
Depreciation Schedule .....	24
Analysis Of Disposition.....	24
Analysis Summary .....	24
Break-Even Analysis (graph).....	24
Show (input box) .....	25
Low Value .....	25
High Value .....	26
Buttons .....	26
<b>Tutorial - Example</b> .....	<b>27</b>
Overview .....	27
Try This! .....	27
<b>LICENSE AGREEMENT</b> .....	<b>31</b>
Lease vs. Buy Analyzer .....	31
<b>Appendix A</b> .....	<b>33</b>
Common Asset Lives Based On Type Of Asset .....	33
Common Asset Lives Based On Activity .....	33
<b>Glossary of Terms</b> .....	<b>35</b>
<b>Index</b> .....	<b>1</b>

# Overview

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## Why Use This Program?

The purpose of the DTS Lease vs. Buy Analyzer is to provide you with total cash and present value cost figures for the economic choices of leasing or buying an asset. Automobiles are the most common usage for this program; however, you can also look at the economics of leasing or buying other assets, such as computers, furniture, or real-estate.

# Installing and Starting

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## System Requirements

IBM compatible Personal Computer

Microsoft Windows 7, 8 or 10.

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## Installation

All commands you need to enter will be typed in **bold** type.

### Installing To A Single Machine

For the purpose of these instructions, we are assuming that your CD drive is drive D, if it is not, please make the appropriate changes. To install the program to a single machine, use the following steps:

1. Click on the **Start** button.
2. Click on the **Run** menu item.
3. Type **D:SETUP** and press the **ENTER** key.
4. Follow the instructions in the installation program.

## **Network Installation**

Network installations instructions are provided in a separate document to customers that have purchased rights to use this program on additional desktops.

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## **Starting the DTS Lease vs. Buy Analyzer**

The Installation program will create a "Denver Tax Software" Program Manager Group, if it doesn't already exist. The DTS Lease vs. Buy Analyzer will be placed within this group.

To start the Lease vs. Buy Analyzer, double-click on the Denver Tax Software program group, then double-click on the Lease vs. Buy Analyzer icon. This will load the Lease vs. Buy Analyzer and you can begin work!

# Analyzing Leasing and Buying

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## General Concept

This program analyzes the economic consequences of leasing vs. buying.

A lease is a contract where the user of the item "borrows" that item for a specified period of time, at which point the user of the item normally gives the asset back to the owner. Often the lease contract gives the user a chance to purchase the asset from the real owner at the end of the lease for a specified option price.

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## Analysis Methods

This program analyzes the cash flows over the life of the lease for both the lease analysis and the buy analysis. Thus, if the lease is for 40 months, both the lease and the buy cashflows will be examined for that period of time.

At the end of the lease, the asset is usually returned to its owner. Because of this, both the lease scenario and buy scenario should be such that the asset is either given up, or sold at the end of the lease term. Let's assume the lease is for 40 months and at the end of the lease the asset is worth \$3,000. The lease and buy scenarios for disposition or sale of that item would be as follows:

### Lease Scenario:

The asset worth \$3,000 might be given up, or, if there is an option to purchase the asset at the end of the lease, you might want to purchase it. If the option price is \$2,000 and the asset is worth \$3,000, you would pay \$2,000 to buy the asset, and resell it for \$3,000, pocketing the \$1,000 (\$3,000-\$2,000) profit. If the asset is worth \$3,000, and the option price is \$4,000, you would let the owner take back the asset rather than pay him more than it is worth.

If the leased asset can be acquired and sold for profit, the program figures the cashflow from the gain, and the tax on the sale.

### Buy Scenario:

The program assumes the asset is sold for the buy scenario in the same month that the lease term would be up in the lease scenario. Using the above example that would be in the 40th month. The program figures the cashflow from the sale proceeds and any tax cost or savings on the sale.

The program calculates cashflows for both the lease and buy scenarios. It then gives you the net amount of cash paid out and the present value of those payments for each

scenario. Note that amounts paid out, like loan payments, are negative and amounts received, such as tax refunds, are positive.

Even though net cash paid is easier to understand, the net present value cost better reflects economic reality.

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## Assumptions, Assumptions, Assumptions...

Before we continue, it is important to realize that we are dealing with the future when making these calculations. Because we are dealing with the future, assumptions are unavoidable. It is also important to realize that the same assumptions are going to be made for the lease scenario and the buy scenario. Thus, if an assumption turns out to be wrong for one scenario, it will also be wrong for the other scenario to much the same degree.

The Break-Even Analysis graph is a powerful tool when dealing with assumptions. If you are assuming a Cost of Capital of 10%, but think it would range from 5% to 15%, you could run the graph from 5% to 15%. By doing this you could see if a change in the assumed Cost of Capital would change your results.

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## How Long Is The Asset Held And How Is It Disposed Of

At the end of the lease the user of the asset can, (1) return the asset to its owner, (2) pay the option price and keep the asset or, (3) pay the option price and sell the asset. To simplify this analysis, the program assumes the following:

1. The asset will either be returned to the owner, if the option price is higher than what the asset is really worth (fair market value), or
2. The asset will be purchased at the option price and immediately sold for fair market value at a profit, if the fair market value is higher than the option price.

If one wants to purchase instead of lease, he or she can pay cash for the entire purchase price or finance the purchase with a loan for all or part of the purchase price. Someone who owns an asset outright, can sell or dispose of that asset at anytime; however, if there is an unpaid loan balance at the time of the sale, that loan will have to be paid off.

To simplify the analysis, the program assumes that a purchaser of the asset would not want to own it any longer than the length of the lease. The primary reason for this assumption is to run both the lease and buy scenarios for the same length of time. Otherwise, you are comparing apples to oranges.

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## Why Is There A Year 0?

When you run reports for the first time, you will notice that year 0 is included in some of them. The reason for this is that the program can not determine whether cash payments are made in January or December of each year; therefore, all cash payments are assumed to have been made on December 31 of each year.

This is actually how most present value analysis works. Some items, such as down payments or deposits, have immediate cash impact. To give a greater present value to those immediate items they are treated as paid on January 1 of year 1, which for all practical purposes in the world of present value analysis, is December 31 of year 0.

For example, if the lease being contemplated is 3 years, the analysis for both the lease scenario and the buy scenario will be 3 years. The program analyzes the cash flows for years 0,1,2, and 3.

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## When Are Taxes Paid

Another required assumption is that taxes are paid on December 31 of the year that the related income is received. In reality it doesn't work like that. Sometimes taxes are paid before December 31 using withholding or estimated taxes, sometimes taxes are paid on the following January 15th or April 15th, or sometimes the client leaves for Venezuela and never pays tax! We had to pick a date, so December 31 appeared to be a reasonable assumption.

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## Present Value - Why Bother?

The easiest analysis to understand is "cash-on-cash." For example, if you spend \$100 on a lease in each of the next three years, your cash cost is \$300. That's easy to figure - \$100 per year times 3 years. Now let us think of this in another way. If you pay \$100 in 1995 dollars, \$100 in 1996 dollars, and \$100 in 1997 dollars, does that add up to \$300 in 1995 dollars? No more so than 100 apples, 100 oranges, and 100 pears adds up to 300 apples.

To make present value clearer we'll look at a better example. Let's say money is worth 10% to you. In other words, you know that you can invest your money and earn 10% on it. This means you can invest \$91 at 10% in 1995 and it will be worth \$100 in 1996, \$83 at 10% in 1995 and it will be worth \$100 in 1997. Thus, to receive \$100 in 1995, \$100 in 1996, and \$100 in 1997 you could invest \$274 (100+91+83) today. This is the equivalent of converting apples, oranges, and pears into apples. \$274 is the present value of \$100 today, \$100 next year, and \$100 the year after that, if you can invest your money at 10%. This percentage is called the discount rate, or Cost of Capital.

Thus, if a scenario indicates the present value cost is \$12,234, that is equivalent to paying \$12,234 now to eliminate all future lease or purchase obligations to own that asset.

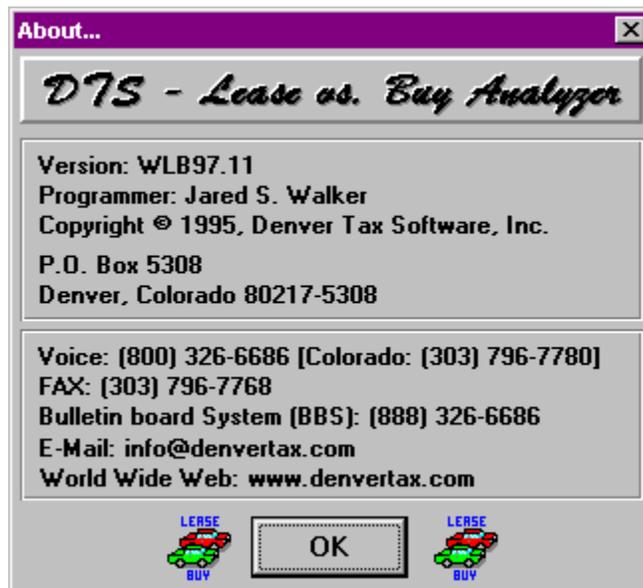
Present value analysis is the most economically sound way to view a scenario where money is received or paid out over more than one year.

# Using The Lease vs. Buy Analyzer

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## Getting Started

When you load the DTS - Lease vs. Buy Analyzer you will first see the About box. The About box provides information on the program's name, version number, and Denver Tax Software's address, phone numbers, and e-mail address. If you ever need any of this information remember that you can get it here. The About box should look similar to this:



To close the About box and start your work, click on the **OK** button or press **ENTER**.

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## Entering Information

The Lease vs. Buy Analyzer uses the normal input procedures that most Windows programs use. To move from one input to another you can either use the mouse to select the input item you want, or press the **TAB** key to move through them.

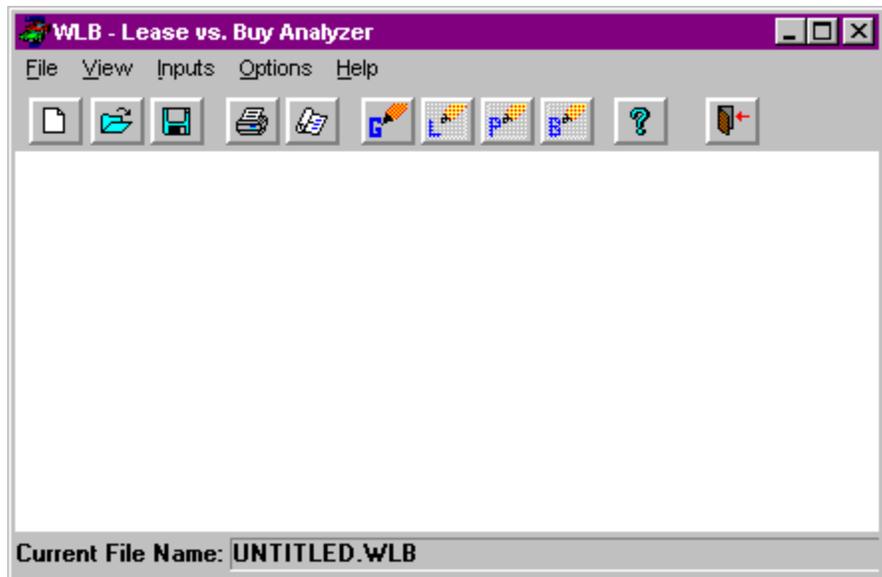
To exit an input form, and keep any changes you have made, either click on the **OK** button, or **TAB** to the **OK** button and press **ENTER**. To exit an input form, but not keep the data you have entered, use the same process as above with the **Cancel** button rather than the **OK** button. If you use any other button to exit an Input form your changes will be kept.

You may find it easier to enter numeric information using the numeric keypad. If so, make sure the **Num Lock** key is on.

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## The Main Screen

The Main Screen is similar to your desktop. From here you can select the different actions you want to perform. The Main Screen contains the various menus, and buttons, that you will use to do your work. The Main Screen should look like the following:



Each menu is listed below with a description of the actions performed by the menu items.

### File

#### New

The New menu item will prepare a new file for you to work with. Whenever you start a new file you should also use the **Save As...** menu item to name it.

#### Open

The Open... menu item allows you to load an old file from disk.

## **Save**

The **Save** menu item allows you to save your current work to a file. If you are saving a new file, you should first use the **Save As...** menu item to give the file a name (unless you have already named it). If the file doesn't have a name it will be saved as UNTITLED.WLB.

## **Save As...**

The **Save As...** menu item allows you to enter a file name and directory to save your file in. It is a good idea to name the file in a way that will allow you to easily identify it later. For example, if the client's name is Judy Holland, you might want to name the file JHOLL01.WLB. Remember that names must be no longer than eight(8) characters, followed by .WLB.

## **Print...**

The **Print...** menu item allows you to select and print reports generated from the file you are working on. The **Print...** menu item will give you the option of printing the Break-Even Analysis graph; however, this report will not automatically print. Instead, you will see the report on screen. You can then get the exact graph you want and print it.

## **Exit**

The **Exit** menu item quits the Lease vs. Buy Analyzer. If you have not saved your work to disk, it will first prompt you to save it.

## **View**

### **Display Reports...**

The **Display Reports...** menu item is similar to the **File, Print...** menu item except that the reports are displayed on your monitor. We suggest that you go over your reports with this menu item before printing them to make sure your work is correct.

## **Inputs**

### **General...**

The **General ...** menu item will display the General Inputs form. This form is where you enter general information such as the client's name, tax rates, Cost of Capital, etc... Further discussion of this form can be found in the section, "General Inputs" on page 18.

### **Lease...**

The **Lease...** menu item will display the Lease Inputs form. This form is where you enter information pertaining to leasing the asset. This menu item will only be available if the General Inputs form has been completed. Further discussion is in the section "Lease Inputs" on page 20.

### **Purchase...**

The **Purchase...** menu item will display the Purchase Inputs form. This form is where you enter information pertaining to purchasing the asset. This

menu item will only be available if the General Inputs form has been completed. Further discussion is in the section "Purchase Inputs" on page 23.

### **Business...**

The **Business...** menu item will display the Business Inputs form. If you have indicated that the asset is used for business purposes, you will use this form to enter information pertinent to the asset's business usage. This menu item will only be available if the General, Lease, and Purchase Inputs forms have been completed and the asset is used for business purposes. Further discussion is in the section "Business Inputs" on page 25.

## **Options**

### **Tool Bar**

The Tool Bar menu item allows you to turn the Tool Bar on and off. When it is turned on there is a checkmark in front of the menu item and the Tool Bar will be visible on the Main Screen. See the chapter "The Tool Bar", on page 16.

### **Color Printer**

The **Color Printer** menu item allows you to specify whether or not you have a color printer. When there is a checkmark in front of this item it indicates that you have a color printer. Clicking on this menu item will toggle the checkmark on and off. If you have a color printer, checking this menu item will allow you to print the Break-Even Analysis graph in color. If you do not have a color printer, make sure you do not select **Color Printer** or your printed graphs may be unreadable.

## **Help**

### **Contents...**

The **Contents...** menu item will load the Lease vs. Buy Analyzer's on-line help system. The on-line help system provides you with a quick way to view this manual and get help while working with the program.

### **Help on Help...**

The **Help on Help...** menu item loads an on-line tutorial that will explain how to use the Lease vs. Buy Analyzer's on-line help system.

### **About...**

The **About...** menu item loads the program's About box, providing you with information on this program, and on Denver Tax Software, Inc.

# The Tool Bar

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## What is the Tool Bar?

The Tool Bar is a panel that appears on the Main Screen and provides a quick way to access menu items. Each button on the Tool Bar represents a frequently used menu item. To use a button on the Tool Bar you only need to click on the button, and the same actions will be performed that would be if you used the menu item.

The Tool Bar can be turned on and off using the **Options, Tool Bar** menu item.

The Tool Bar looks like the following:



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## Tool Bar Buttons

### **New**

The New button performs the same action as the **File, New** menu item (see page 13).

### **Open**

The Open button performs the same action as the **File, Open...** menu item (see page 13).

### **Save**

The Save button performs the same action as the **File, Save** menu item (see page 14), unless the file hasn't been saved (or is named UNTITLED.WLB). If it hasn't been saved it performs the same action as the **File, Save As...** menu item (see page 14).

### **Print**

The Print button performs the same action as the **File, Print...** menu item (see page 14).

## **Display**

The Display button performs the same action as the **View, Display Reports...** menu item (see page 14).

## **General Inputs**

The General Inputs button performs the same action as the **Inputs, General...** menu item (see page 14).

## **Lease Inputs**

The Lease Inputs button performs the same action as the **Inputs, Lease...** menu item (see page 14). This button is only available if the General Inputs form has been completed.

## **Purchase Inputs**

The Purchase Inputs button performs the same action as the **Inputs, Purchase...** menu item (see page 14). This button is only available if the General Inputs form has been completed.

## **Business Inputs**

The Business Inputs button performs the same action as the **Inputs, Business...** menu item (see page 15). This button is only available if the General, Lease, and Purchase Inputs forms have been completed and the asset has business usage.

## **Help**

The Help button performs the same action as the **Help, Contents...** menu item (see page 15).

# Inputs

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## General Inputs

General Inputs (test (data given by DMK))

Name of Buyer: Mrs. Example

Optional Line: Calculation on 03/18/97

Description of Asset: auto

Cost of Capital (7.5% = 7.5): 10

Business Use Percent (75% = 75): 75

Ordinary Marginal Tax Rate (25.5% = 25.5): 35

Marginal Tax Rate on Sale of Asset (28% = 28): 28

Lease... Purchase... Business... OK Cancel

### Name of Buyer

Enter the name of the prospective buyer (or lessee) for the asset.

### Optional Second Line

Enter any additional information here. You may want to enter anything that will help you better identify this buyer. It is also useful to enter the date you ran the calculation. This information will be shown in report headings, except for the Break-Even Analysis (graph) report.

### Description of Asset

This input is for you to describe the asset that may be purchased or leased. This is often useful if you are analyzing more than one possible purchase or lease for a client.

## Cost of Capital

The Cost of Capital is the discount or interest rate used to convert future cashflows to present values. This can be a difficult input to figure out, but it is very important to the analysis! If you enter your best estimate for Cost of Capital you can use the Break Even Analysis graph to quickly see how the results would change for a certain range of Cost of Capital inputs. For more information on Cost of Capital see the section "Present Value - Why Bother?" on page 11.

Make sure you **do not** enter the decimal equivalent. Enter 25 for 25%, not .25!

## Business Use Percent

Enter the percent amount of time the asset is used for business purposes. If it is always used for business purposes enter 100. If it is never used for business, enter 0. If it is used four out of every five days for business, enter 80.

Make sure you **do not** enter the decimal equivalent. Enter 75 for 75%, not .75!

## Ordinary Marginal Tax Rate

This is the combined state and federal marginal tax rate on ordinary income for the person or business for whom this calculation is being made.

Make sure you **do not** enter the decimal equivalent. Enter 25 for 25%, not .25!

## Marginal Tax Rate On Sale Of Asset

This is the marginal tax rate on income from *gain* on the sale of assets for the person or business for whom this calculation is being made. This *could* be the same as the Ordinary Marginal Tax Rate, described above.

Make sure you **do not** enter the decimal equivalent. Enter 25 for 25%, not .25!

## Buttons

### **OK**

The **OK** button exits the General Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### **Cancel**

The **Cancel** button exits the General Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### **Lease...**

The **Lease...** button exits the General Inputs form, keeping any changes made to the form, and loads the Lease Inputs form.

### **Purchase...**

The **Purchase...** button exits the General Inputs form, keeping any changes made to the form, and loads the Purchase Inputs form.

## Business...

The **Business...** button exits the General Inputs form, keeping any changes made to the form, and loads the Business Inputs form. This button is only available if the Business Use Percent is greater than zero (0), and the Lease and Purchase Inputs forms have been completed.

## Lease Inputs

**Lease Inputs (Mrs. Example)**

**Deposits and tax:**

Non-Refundable Lease Deposit:  Deduct Non-Refundable Deposit:  
 End  
 Amortize  
 Beginning

Refundable Lease Deposit:

Sales Tax Upon Signing Lease:

**Lease payment information:**

Normal Lease Payment:  Frequency of Lease Payments:  
 Monthly (12/year)  
 Quarterly (4/year)  
 Semi-Annually (2/year)  
 Annually (1/year)

Number of Lease Payments:

**Lease expenses:**

Miscellaneous Annual Lease Expense:

End of Lease Expense:

**End of lease values:**

Value of Asset at End of Lease:

Lease Option Price:

## Non-Refundable Lease Deposit

This is a deposit that must be paid 'up-front' on the lease and is not refunded. Do not include the first month's lease payment in this amount. The first month's lease payment should be included in the Number Of Lease Payments input.

## Deduct Non-Refundable Deposit

Enter whether you want to deduct the Non-Refundable Lease Deposit at the End of the lease, Beginning of the lease, or if you want it Amortized over the period of the lease. Usually lease deposits are deducted at the End of the lease; however, if the lease deposit is a significant amount, it may be appropriate to amortize the deduction.

## Refundable Lease Deposit

This is a deposit that the lessor takes at the beginning of the lease and almost certainly returns at the end of the lease. There is no tax consequence for this type of

deposit. It will show as a negative cashflow at the beginning of the lease and a positive cashflow at the end of the lease.

## Sales Tax Upon Signing Lease

This is the sales tax charged on the *Initial Acquisition* of the leased asset. Under some circumstances, lessees have to pay sales tax upon signing the lease. If that is your situation, enter that amount of sales tax now. In many situations the sales tax is added to the Normal Lease Payment. If this is the case, enter zero for this input and include the sales tax in the Normal Lease Payment.

Example 1: The lessee must pay \$1,000 of sales tax when the lease contract is signed. In this case \$1,000 would be entered in this input.

Example 2: The lessee does not pay sales tax when the lease is signed, but does pay sales tax of \$10 per month in addition to the monthly lease payment of \$200. In this case, leave this input blank and enter \$210 for the Normal Lease Payment.

## Normal Lease Payment.

This is the amount paid during each period of the lease.

## Number Of Lease Payments

This is the number of periodic lease payments. **Do not** include any prepaid amounts in this. If the lease contract indicates that there are 48 lease payments, but that the last two payments must be prepaid, you would enter 46 (48-2). The first lease payment should be included in this.

## Frequency Of Lease Payments

This is the number of times per year that lease payments must be made. Usually this would be monthly, but in some cases lease payments may also be made quarterly (4 payments per year), semi-annually (2 payments per year), or annually (1 payment per year).

## Miscellaneous Annual Lease Expense

In certain situations the lessee may have to pay an additional expense each year. An example of this is a required service contract. Enter any such payments here.

**Do not** include Normal Lease Payments here.

**Do not** include any payments that would be incurred regardless of whether the asset is purchased or leased.

## End Of Lease Expense

Enter any penalty that may be incurred at the end of the lease. Often this type of payment is a penalty for excessive miles driven during the lease period.

## Value Of Asset At End Of Lease

Enter what you think the asset might be worth at the end of the lease. This can be a very hard input to decide on if you don't own a crystal ball! If the lease is less than 5

years this can be a very important input. The Break-Even Analysis graph can be very useful with this input, because you can examine a range of possible values.

## **Lease Option Price**

This is the option price listed in the lease contract to purchase the leased asset at the end of the lease.

## **Buttons**

### ***OK***

The **OK** button exits the Lease Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### ***Cancel***

The **Cancel** button exits the Lease Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### ***Purchase...***

The **Purchase...** button exits the Lease Inputs form, keeping any changes made to the form, and loads the Purchase Inputs form.

### ***Business...***

The **Business...** button exits the Lease Inputs form, keeping any changes made to the form, and loads the Business Inputs form. This button is only available if the Business Use Percent is greater than zero (0), and the General and Purchase Inputs forms have been completed.

### ***General...***

The **General...** button exits the Lease Inputs form, keeping any changes made to the form, and loads the General Inputs form.

## Purchase Inputs

**Purchase Inputs (Mrs. Example)**

**Purchase costs:**

Price of Asset: 40000.00

Sales Tax on Purchase: \$1,000.00

Down Payment: \$5,000.00

**Loan related items:**

Term of Loan in Years: 5

Frequency of Loan Payments:

- Monthly (12/year)
- Quarterly (4/year)
- Semi-Annually (2/year)
- Annually (1/year)

Miscellaneous Annual Purchase Expense: \$250.00

**Interest/interest-related items:**

Annual Loan Interest Rate (8.75%=8.75): 8

Interest Deduction Percent (10%=10): 75

Business... General... Lease... OK Cancel

### Price Of Asset

Enter the *cash* cost to purchase the asset outright. Even if the prospective buyer is almost certain to lease the asset they should know what a reasonable purchase price is.

### Sales Tax On Purchase

Enter the sales tax that would be charged on the purchase of the asset. In many cases the sales tax can be included in the purchase price, in that case you can ignore this input. If the asset might be a 'luxury' automobile you need to enter the sales tax here because the Lease Inclusion Amount is based on the value of the auto *before* sales tax.

### Down Payment

This is the up-front payment on the asset. If the prospective buyer is purchasing the asset outright, the Down Payment should match the Price Of Asset + Sales Tax On Purchase.

### Term Of Loan In Years

This is the number of years the loan is outstanding. Thus, if the loan is for 48 months you would enter 4.

## Frequency Of Loan Payments

This is the number of times per year that loan payments must be made. Usually this would be monthly, but in some cases loan payments may also be made quarterly (4 payments per year), semi-annually (2 payments per year), or annually (1 payment per year).

## Miscellaneous Annual Purchase Expense

In certain situations the buyer may have to pay an additional expense each year. An example of this is a service contract. Enter any such payments here.

**Do not** include Normal Loan Payments here.

**Do not** include any payments that would be incurred regardless of whether the asset is purchased or leased.

## Annual Loan Interest Rate

This is the annual rate charged on the loan. Because you may have different possible rates, the Break-Even Analysis graph is useful to look at range of possibilities.

Make sure you **do not** enter the decimal equivalent. Enter 8.5 for 8.5%, not .085!

## Interest Deduction Percent

Enter the percent of annual interest paid that can be deducted. If you enter 60%, for example, the program will take 60% of the annual interest as a reduction of taxable income. Under some circumstances, when home equity loans are used, one might want to enter a larger Interest Deduction Percent than Business Use Percent.

In general, if the asset is a personal asset, none of the interest is deductible. If the asset is owned by a corporation, the percent of deductible interest should not exceed the Business Use Percent.

Make sure you **do not** enter the decimal equivalent. Enter 75 for 75%, not .75!

## Buttons

### ***OK***

The **OK** button exits the Purchase Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### ***Cancel***

The **Cancel** button exits the Purchase Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### ***Business...***

The **Business...** button exits the Purchase Inputs form, keeping any changes made to the form, and loads the Business Inputs form. This button is only available if the Business Use Percent is greater than zero (0), and the General and Lease Inputs forms have been completed.

### General...

The **General...** button exits the Purchase Inputs form, keeping any changes made to the form, and loads the General Inputs form.

### Lease...

The **Lease...** button exits the Purchase Inputs form, keeping any changes made to the form, and loads the Lease Inputs form.

---

## Business Inputs

The Business Inputs form is only available if the Business Use Percent, entered in the General Inputs form, is greater than zero and the General, Lease, and Purchase Inputs forms have been completed.

**Business Inputs (Mrs. Example)**

**Asset Information:**

Is this an Automobile?  
 Yes  
 No

Is this Listed Property?  
 Yes  
 No

**Depreciation:**

Depreciable Life:

**Depreciation Method:**

Automobile  
 150% Declining Balance  
 Double Declining Balance  
 Straight Line  
 No Depreciation

**Section 179 Depreciation:**

Use Section 179?  
 Yes  
 No

Section 179 Amount:

General... Lease... Purchase... OK Cancel

### Is This An Automobile?

Click on **Yes** if the asset is an automobile, and **No** if it isn't. If you enter **No**, but indicate that Automobile depreciation is to be used, the results could be erroneous.

### Is This Listed Property?

Click on **Yes** if the asset is listed property and **No** if it isn't. This input is only important if the Business Use Percent is less than 100%.

Listed property is any passenger automobile, any other property used as a means for transportation, any property of a type generally used for purposes of entertainment, recreation or amusement, any computer or peripheral equipment, any cellular telephone, or other property defined as listed in the regulations. See Internal Revenue Code Section 280F(d)(4) for more information.

## Depreciable Life

Enter the number of years of depreciation, or 0 if no depreciation is allowed.

For a listing of some common asset lives, see "Appendix A" on page 38.

## Depreciation Method

Click on the depreciation method that applies to the asset. The Lease vs. Buy Analyzer will try to pick the right method for you; however, you should check to make sure it is correct.

Usually 3, 5, 7, or 10 year MACRS property uses Double Declining Balance, 15 or 20 year MACRS usually uses 150% Declining Balance, and 27.5 or 31.5 year MACRS usually uses Straight Line. The program will assume MACRS with the half year convention based on current income tax law.

For real estate, this causes an inaccuracy in that real property is supposed to use a mid month, not a mid year convention. Thus, real estate should have about 50% more depreciation in the first year than what the Lease. vs. Buy Analyzer calculates. This program was intended primarily for personal property, not real estate. Please call us at 1-800-326-6686 if you want to use this program for real estate.

## Use Section 179?

Click on **Yes** if you want to use Section 179 depreciation, otherwise click on **No**. If you are considering leasing for its supposed tax benefits and the asset is not an automobile, you might want to consider using Section 179 in your analysis. If you are not a tax professional, you should discuss this with one first.

Note: §179 depreciation can not be used with real estate.

## Section 179 Amount

This is only relevant if you answered **Yes** to **Use Section 179?**

Enter the amount of Section 179 depreciation you want. If you are using Section 179 with an auto, enter 17,500 and the Lease vs. Buy Analyzer will determine the correct deduction.

Note: Internal Revenue Code Section 179 currently permits expensing of up to \$17,500 of the purchase of certain new assets. Please refer to that code section. Historically, this limit, now \$17,500, has been subject to change.

## Buttons

### OK

The **OK** button exits the Business Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### ***Cancel***

The **Cancel** button exits the Business Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### ***General...***

The **General...** button exits the Business Inputs form, keeping any changes made to the form, and loads the General Inputs form.

### ***Lease...***

The **Lease...** button exits the Business Inputs form, keeping any changes made to the form, and loads the Lease Inputs form.

### ***Purchase...***

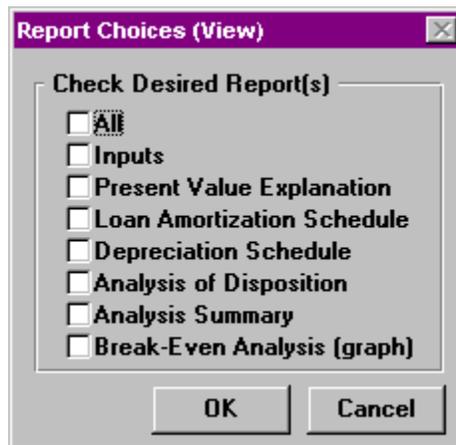
The **Purchase...** button exits the Business Inputs form, keeping any changes made to the form, and loads the Purchase Inputs form.

# Understanding the Lease vs. Buy Analyzer Reports

---

## Deciding Which Reports To View Or Print

When you select the **V**iew, **D**isplay Reports... menu item, **F**ile, **P**rint... menu item, **P**rint Tool Bar button, or **D**isplay Tool Bar button you will be presented with a screen allowing you to decide which reports you want to view or print. If you are printing you will first see the Printer Options screen, which allows you to enter the number of copies you want and other printer options. The Report Choices screen looks like the following:



If you select the All option you will get all of the reports listed, otherwise you will only get those that you select. To select an option, click on the box next to the name and an X will appear in it indicating you have made that selection. If you select All and then decide you do not want all of the reports, you must click on All again, and then remove the reports you don't want by clicking on them so that the X disappears.

Note: If you have not entered all of the required inputs, the Lease vs. Buy Analyzer will not display this screen. Instead it will show you what inputs, or Input forms, still need to be completed.

Note: The Break-Even Analysis (graph) report does not print automatically. Instead you will see the Break-Even Analysis (graph) screen. To print, you must first choose the graph you desire and then press the **P**rint button. See the section "Break-Even Analysis (graph)" on page 29.

---

## Inputs Report

This report provides you with the inputs you entered. It is a good way to verify all of your inputs.

---

## Present Value Explanation

The Present Value Explanation report gives a brief explanation of what present value means and why it is important. If you are doing this analysis for someone else, you can give this report to them to explain what "present value" means.

---

## Loan Amortization Schedule

If the inputs indicate that the Price Of Asset + Sales Tax On Purchase is more than the Down Payment, a loan amortization schedule is available. In this report the loan begins in year 1 and runs until either the loan is paid off or the lease term has expired. If the loan is for 10 years, and the lease is for 3 years, the analysis assumes that the asset will be sold in the same month that the lease expires. Therefore, the loan would have to be paid off before the asset can be sold.

---

## Depreciation Schedule

This report is available only if you have indicated in the Business Inputs form that depreciation is applicable. This shows what the depreciable basis is, as well as, how the asset is depreciated. If appropriate, it indicates when depreciation switches from accelerated MACRS to straight line MACRS.

---

## Analysis Of Disposition

This report shows what happens when the asset is disposed of or sold at the end of the lease or ownership period.

---

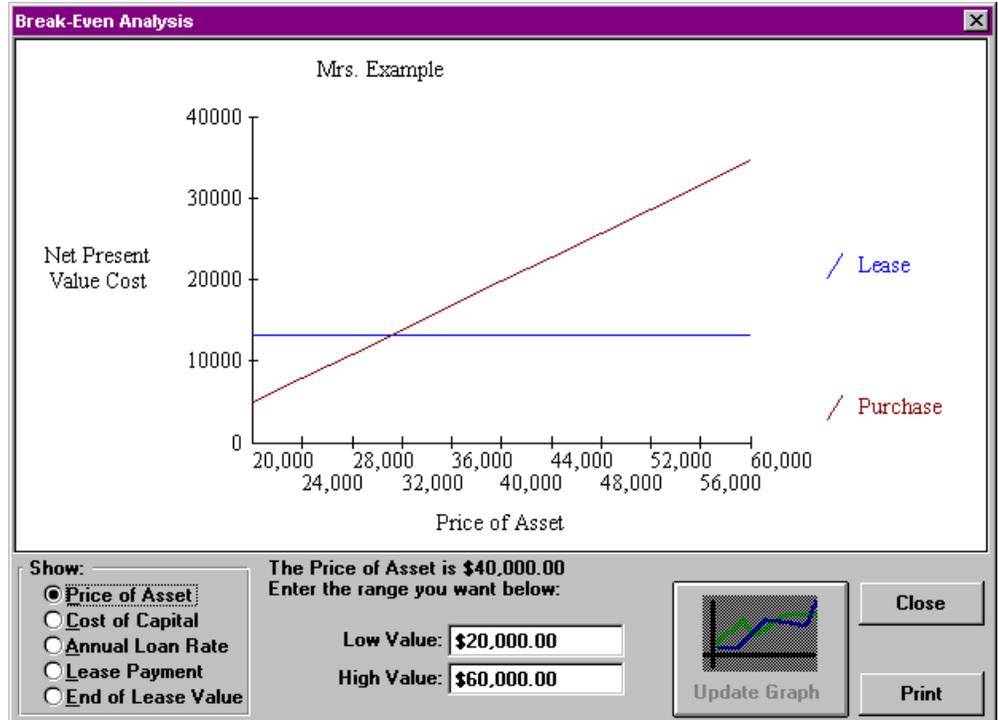
## Analysis Summary

The Analysis Summary is actually three reports. The first two reports show a year-by-year analysis of the cashflows for the Lease and Purchase Scenarios, respectively. In addition to the year-by-year analysis, the last report is a comparison of the Lease and Buy Scenarios. A positive amount indicates how much money would be saved by leasing the asset, and a negative amount shows how much money would be saved by purchasing the asset.

---

## Break-Even Analysis (graph)

The Break-Even Analysis report is probably the most useful report available. This usefulness comes from its ability to display a range of possible values for certain inputs, and the results produced within that range. It is also the only report that requires extra input to use. When printing or viewing this report you will see a screen similar to the following:



The Break-Even Analysis allows you to vary the input on the Price Of Asset, Cost of Capital, Annual Loan Rate, Lease Payment, and End of Lease Value. By entering the range you would like to vary the input over, you can see whether leasing or purchasing is a better choice.

Using this report is actually fairly simple. In the Show box (in the lower left corner of the report) click on the input item you would like to examine. The Lease vs. Buy Analyzer will then enter a Low Value and High Value for you, or if you have previously changed the values for that particular input it will enter the values you used. Next, if you wish to change them, enter the Low Value you desire and then the High Value.

At this point you should have noticed that when you change any of these three inputs the Update Graph button becomes available and the 'Press Update Graph' sign appears above the button. This is to let you know that the graph displayed no longer matches the inputs you have entered. Press the Update Graph button to see the new graph.

The following are the different options you have on the Break-Even Analysis (graph) report.

## Show (input box)

This is the list of selections in the lower left corner of the report.

Click on the input that you would like to display a graph for. After doing so, you may also want to change the Low Value and High Value before updating the graph.

## Low Value

Enter the lowest value you would like displayed on the graph for the input you selected in the Show box.

## High Value

Enter the highest value you would like displayed on the graph for the input you selected in the Show box.

## Buttons

### ***Update Graph***

Whenever you make a change to the Show input box, Low Value input or High Value input this button will be available. To update and display the new graph you must press this button. If this button is not available it means the graph displayed matches the inputs in the Show input box, Low Value input, and High Value input.

### ***Close***

This button will exit the Break-Even Analysis (graph) report.

### ***Print***

Clicking on this button will print the graph to your printer. If you have a color printer and have checked the **Options, Color Printer** menu item the graph will be printed in color. Otherwise the graph will be printed in black and white and symbols will be added to the lines to indicate which is the Lease Scenario and which is the Purchase Scenario. For more information on color printers see the section "Color Printer" on page 15.

Note: If you have checked the **Options, Color Printer** menu item, but do not have a color printer, you will probably not be able to determine which line represents the Lease Scenario and which represents the Purchase Scenario.

# Tutorial - Example

---

## Overview

This chapter provides an opportunity to learn how the DTS - Lease vs. Buy Analyzer works. We suggest you go through this example, even if you have used the DOS version, so that you understand how it works before running calculations for clients or yourself.

This example will show you how to fill out the Input forms, how to display reports, and how to use the Break-Even Analysis (graph) report.

---

## Try This!

In this example, when you are asked to 'click' on an item you should either click on that item with your mouse or use the equivalent keyboard commands to activate it. If you are unfamiliar with using the Windows operating environment we suggest you either read your Windows manual, use Windows Help, or have someone teach you.

- Double-click on the "Denver Tax Software" Program Manager Group
- Double-click on the "Lease vs. Buy" icon.

You should now see the Lease vs. Buy Analyzer's About box.

- Click on the **OK** button.

The Main Screen should now appear.

- Click on **F**ile.
- Click on **N**ew.
- Click on **F**ile.
- Click on **S**ave, **A**s...
- Type the name **WLBTEST.WLB** and click on the **OK** button, or press the **ENTER** key.

You have opened a new file and named it WLBTEST.WLB. Now continue:

- Click on **I**ntputs.
- Click on **G**eneral.

The General Inputs form should appear,

- Type in a name.

- Press the **TAB** key.
- Type in any additional information you would like here.
- Press the **TAB** key.
- Type in **Tutorial Motors, Example Lxi**
- Press the **TAB** key.
- Enter **8.5** for Cost of Capital.
- Press the **TAB** key.
- Enter **75** for Business Use Percent.
- Press the **TAB** key.
- Enter **35** for the Ordinary Marginal Tax Rate
- Press the **TAB** key.
- Enter **28.5** for the Marginal Tax Rate on Sale of Asset.
- Click on the **OK** button.

You should now be back at the Main Screen. If the Tool Bar,



*isn't* displayed on your Main Screen do the following steps:

- Click on **O**ptions.
- Click on **T**ool Bar.

Now you should see the Tool Bar. You will notice that the buttons for General Inputs, Lease Inputs, and Purchase Inputs are all available. The Business Inputs form is not available yet because we have not completed the Lease or Purchase Inputs forms. Let's do those next:

- Click on the **L**ease Inputs button 

Now the Lease Inputs form should be on the screen.

- Enter **500** for the Non-Refundable Lease Deposit.
- Press the **TAB** key.
- Click on **End** in the Deduct Non-Refundable Lease Deposit box.
- Press the **TAB** key.
- Press the **TAB** key again. (We won't have a refundable deposit for this example.)
- Enter **100** for Sales Tax Upon Signing Lease.
- Press the **TAB** key.
- Enter **500** for the Normal Lease Payment.
- Press the **TAB** key.
- Enter **47** for the Number Of Lease Payments.
- Click on **Monthly** in the Frequency Of Lease Payments box.

- Press the **TAB** key.
- Enter **400** for the Miscellaneous Annual Lease Expense.
- Press the **TAB** key.
- Enter **200** for the End of Lease Expense.
- Press the **TAB** key.
- Enter **20000** for the Value of Asset at End of Lease.
- Press the **TAB** key.
- Enter **15000** for the Lease Option Price.
- Click on the **Purchase...** button

The Lease Inputs form should disappear and the Purchase Inputs form should appear. Now,

- Enter **40000** for the Price Of Asset.
- Press the **TAB** key.
- Enter **5000** for the Down Payment.
- Press the **TAB** key.
- Enter **1000** for the Sales Tax on Purchase.
- Press the **TAB** key.
- Enter **5** for the Term of Loan in Years.
- Click on **Monthly** in the Frequency of Payments box.
- Press the **TAB** key.
- Enter **8** for the Annual Loan Interest Rate.
- Press the **TAB** key.

Notice that the Interest Deduction Percent input already has 75 in it. That is because it usually can be no greater than the Business Use Percent, so the Lease vs. Buy Analyzer enters the Business Use Percent to remind you.

- Press the **TAB** key.
- Press the **ENTER** key.

Now you should again be at the Main Screen. This time you should notice that the Business button is available.

- Click on **I**nputs.
- Click on **B**usiness.

The Business Inputs form should appear.

- Click on the Depreciable Life input box.
- Use the **Delete** or **Backspace** keys to delete the contents.
- Enter **12**.
- Press the **TAB** key.

Notice that the Depreciation Method input box is now set to Double Declining Balance. The Lease vs. Buy Analyzer will always try to determine for you what the

method should be. You should *always verify* that the method it selects is correct before going on.

- Click on the **OK** button.

Now we are back at the Main Screen again, and all our inputs are complete. Let's view the results to see whether we should be leasing or buying!

- Click on the **Display** button .

The Report Choices (View) screen should appear.

- Click on **All**.
- Click on **OK**.

Depending on your machine you may have to wait a little while for all the reports to generate and appear on the screen. When they do you can see the results of the calculations, and whether you should lease or buy. Click on the Close button when you are done looking at a report. When you get to the Break-Even Analysis (graph) report continue with the tutorial below.

At this point you should have the Break-Even Analysis (graph) report on the screen. It should be showing a graph of the Price of Asset input varying over a range of input values. Now,

- Click on **Lease Payment** in the Show input box.
- Click on the **Update Graph** button.

The graph will be updated to represent the new inputs. You can now see that if the Lease Payment is a little over \$700 the Lease and Purchase scenarios will 'Break-Even.' To find out exactly where, follow these steps:

- Click in the Low Value box.
- Using the **Delete** or **Backspace** keys erase the contents.
- Enter **700**.
- Press the **TAB** key.
- Enter **730**.
- Click on the **Update Graph** button again.

Notice that you have now homed in on where they meet. Try it again, using a **Low Value** of 710 and a **High Value** of 720. Make sure you press the **Update Graph** button. If you keep at it you will find that they 'break-even' between \$715 and \$716 dollars.

Now, if you want to print your graph, just click on the **Print** button. Then click on **Close** and you will be back to the Main Screen.

You are now ready to use the Denver Tax Software - Lease vs. Buy Analyzer!

# LICENSE AGREEMENT

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## Lease vs. Buy Analyzer

by

Denver Tax Software, Inc.

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# Appendix A

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## Common Asset Lives Based On Type Of Asset

Asset	Life
Office furniture, fixtures & equipment	7
Computers	5
Cars (subject to special rules)	5
Typewriters, calculators, adding machines, copiers, and other data handling equipment other than computers	5
Trucks	5
Real Estate -residential rental	27.5
Real Estate - non-residential	31.5

---

## Common Asset Lives Based On Activity

Activity Used In	Life
Personal & Professional services, wholesale & retail trades	5
Agricultural	7
Cattle, breeding or dairy	5
Cattle, breeding or work	7
Hogs, breeding	3
Mining	7
Oil & gas drilling	5
Oil & gas exploration	7
Construction	5
Printing & publishing	7
Chemical manufacturing	5
Manufacturing of electronic components	5

[For more information see http://www.denvertax.com/lb.htm](http://www.denvertax.com/lb.htm)

[For more information see http://www.denvertax.com/lb.htm](http://www.denvertax.com/lb.htm)

# Glossary of Terms

## **Annual Loan Interest Rate**

This is the annual rate charged on the loan. Because you may have different possible rates, the Break-Even Analysis graph is useful to look at a range of possibilities.

## **Business Use Percent**

The Business Use Percent is the percentage of time the asset is used for business purposes.

## **Cost of Capital**

The Cost of Capital, or discount rate, is the anticipated Cost or value of money to you.

## **Down Payment**

This is the up-front payment on the asset. If the prospective buyer is purchasing the asset outright, the Down Payment should match the Price Of Asset + Sales Tax On Purchase.

## **End Of Lease Expense**

The End of Lease Expense is any penalty that may be incurred at the end of the lease. Often this type of payment is a penalty for excessive miles driven during the lease period.

## **Frequency Of Lease Payments**

This is the number of times per year that lease payments must be made. Usually this would be monthly, but in some cases lease payments may also be made quarterly (4 payments per year), semi-annually (2 payments per year), or annually (1 payment per year).

## **Frequency Of Loan Payments**

This is the number of times per year that loan payments must be made. Usually this would be monthly, but in some cases loan payments may also be made quarterly (4

payments per year), semi-annually (2 payments per year), or annually (1 payment per year).

## **Inputs Form**

An Inputs Form is a window that appears on your monitor to allow you to enter data to be used to make calculations. The Lease vs. Buy analyzer has four Inputs Forms, the General, Lease, Purchase, and Business Inputs Forms.

## **Lease Inclusion Amount**

The Lease Inclusion Amount is the increase in taxable income required if the fair market value of an automobile exceeds a certain limit. See Internal Revenue Section 280F.

## **Lease Option Price**

This is the option price listed in the lease contract to purchase the leased asset at the end of the lease.

## **Listed Property**

Listed property is any passenger automobile, any other property used as a means for transportation, any property of a type generally used for purposes of entertainment, recreation or amusement, any computer or peripheral equipment, any cellular telephone, or other property defined as listed in the regulations. See Internal Revenue Code Section 280F(d)(4) for more information.

## **MACRS**

Modified Accelerated Cost Recovery System.

## **Marginal Tax Rate**

Marginal Tax Rate refers to the rate of tax on the taxpayer's last dollar of income. Thus, if a taxpayer has taxable income of \$30,000, and if \$30,000 is in the 28% tax rate, the taxpayer's marginal tax rate would be 28%.

## **Miscellaneous Annual Lease Expense**

In certain situations the lessee may have to pay an additional expense each year. An example of this is a required service contract.

## **Non-Refundable Lease Deposit**

This is a deposit that must be paid 'up-front' on the lease and is not refunded.

## **Normal Lease Payment**

This is the amount paid during each period of the lease.

## **Number Of Lease Payments**

This is the number of periodic lease payments. Do not include any prepaid amounts in this. If the lease contract indicates that there are 48 lease payments, but that the last two payments must be prepaid, you would enter 46 (48-2).

## **Option Price**

Option Price refers to the cost to buy an asset after the asset's lease term is over.

## **Ordinary Income**

Ordinary Income refers to income received from taxable interest income, wages, net taxable business income, etc.

## **Present Value**

Present Value refers to what future payments and income are worth in today's money. For example, if you know you can earn 10% on your money, the present value of \$100 dollars one year from now, is \$91.

## **Price Of Asset**

This is the cash cost to purchase the asset outright. Even if the prospective buyer is almost certain to lease the asset they should know what a reasonable purchase price is.

## **Refundable Lease Deposit**

This is a deposit that the lessor takes at the beginning of the lease and almost certainly returns at the end of the lease.

## **Sales Tax Upon Signing Lease**

This is the sales tax charged on the Initial Acquisition of the leased asset. Under some circumstances, lessees have to pay sales tax upon signing the lease.

## **Term Of Loan In Years**

This is the number of years the loan is outstanding.

## **Value Of Asset At End Of Lease**

The Value of Asset at End of Lease is what the asset might be worth at the end of the lease. This can be a very hard input to decide on, unless you own a crystal ball! If the lease is less than 5 years this can be a very important input. The Break-Even Analysis (graph) can be used with this input to look at different possibilities.

[For more information see http://www.denvertax.com/lb.htm](http://www.denvertax.com/lb.htm)

# Index

## A

About box 7, 10  
About... 10  
Analysis Methods 4  
Analysis Of Disposition 24  
Analysis Summary 24  
Annual Loan Interest Rate 19  
Assumptions  
    Assumptions, Assumptions... 5

## B

Break-Even Analysis 5, 9–10, 9, 10, 13, 16, 17, 19, 23–27, 24, 25, 26, 27, 30  
Break-Even Analysis (graph) 24, 25, 26  
    High Value 25–26, 26  
    Low Value 25  
    Update Graph 25, 26, 25–26, 26  
Business Inputs 10, 15, 17, 19–22, 20, 21, 24  
    Depreciable Life 21  
    Depreciation Method 21  
    Is This An Automobile? 20  
    Is This Listed Property? 20  
    Section 179 Amount 21  
    Use Section 179? 21  
Business Inputs button 12  
Business Use Percent 14, 17, 19–20, 20  
Buttons 8, 11, 14, 17, 19, 21, 26

## C

Close 26  
Color Printer 10, 26  
Common Asset Lives 21, 33  
Common Asset Lives Based On Activity 33  
Common Asset Lives Based On Type Of Asset 33  
Compuserve address 7  
Contents... 10  
Cost of Capital 5–6, 5, 6, 14, 24, 25

## **D**

Deciding Which Reports To View Or Print 23  
Deduct Non-Refundable Deposit 15  
Depreciable Life 21  
Depreciable Life Table 21, 33  
Depreciation Method 21  
Depreciation Schedule 24  
Description of Asset 13  
Discount Rate 6  
Display 9–10, 9, 23–27, 24, 25, 26, 27  
Display button 12  
Display Reports... 9  
DOS 27  
Down Payment 18, 24

## **E**

E-mail (Denver Tax Software) 7  
End Of Lease Expense 16  
Entering Information 7  
Example 5, 6, 9, 16, 19, 27–28, 27  
Exit 7, 8–9, 8, 9

## **F**

File 8–9, 8, 9, 11, 21, 23, 27  
    New 8, 21  
    Open 8  
    Save 8–9, 9  
Frequency Of Lease Payments 16  
Frequency Of Loan Payments 19

## **G**

General Concept 4  
General Inputs 9–10, 12–15, 13, 14, 17, 18, 19, 20, 22, 27  
    Business Use Percent 14, 17, 19–20, 20  
    Cost of Capital 14  
    Description of Asset 13  
    Marginal Tax Rate On Sale Of Asset 14  
    Name of Buyer 13  
    Optional Second Line 13  
    Ordinary Marginal Tax Rate 14  
General Inputs button 12  
Getting Started 7

## **H**

Help 10  
Help button 12–13, 13  
Help on Help... 10  
High Value 25–26, 26  
How Long Is The Asset Held And How Is It Disposed Of 5

## I

Inputs 9–10, 17–30, 18, 19, 20, 21, 23, 24, 25, 26, 27  
Inputs Report 24  
Installation 2, 3  
    Network 3  
Installing To A Single Machine 2  
Interest Deduction Percent 19  
Is This An Automobile? 20  
Is This Listed Property? 20

## L

Lease Inputs 9, 14–15, 14–15, 15, 16, 17, 19–20, 22  
    Deduct Non-Refundable Deposit 15  
    End Of Lease Expense 16  
    Frequency Of Lease Payments 16  
    Lease Option Price 17  
    Miscellaneous Annual Lease Expense 16  
    Non-Refundable Lease Deposit 15  
    Normal Lease Payment 16  
    Number Of Lease Payments 16  
    Refundable Lease Deposit 15  
    Sales Tax Upon Signing Lease 16  
    Value Of Asset At End Of Lease 16  
Lease Inputs button 12  
Lease Option Price 17  
Lease vs. Buy Analyzer 31  
LICENSE AGREEMENT 31  
Loan Amortization Schedule 24  
Low Value 25

## M

MACRS 21, 24  
Main Screen 8, 10–11, 10, 11, 14, 17, 19, 21–22, 27–30  
Marginal Tax Rate On Sale Of Asset 14  
Miscellaneous Annual Lease Expense 16  
Miscellaneous Annual Purchase Expense 19

## N

Name of Buyer 13  
Network Installation 3  
New 8, 21  
New button 11  
Non-Refundable Lease Deposit 15  
Normal Lease Payment 16  
Normal Lease Payment. 16  
Number Of Lease Payments 16  
Numeric Keypad 7, 8

## O

Open 8  
Open button 11

Option Price 4–5, 4, 5, 17  
Optional Second Line 13  
Options 10–11, 10, 11, 23, 26, 27  
    Color Printer 10, 26  
    Tool Bar 10, 23, 27, 28  
Ordinary Income 14  
Ordinary Marginal Tax Rate 14  
Overview 27

## **P**

Present Value - Why Bother? 6  
Present Value Explanation 24  
Price Of Asset 18, 24–25, 24  
Print 9–10, 9, 10, 23, 26  
Print button 11  
Print... 9  
Purchase Inputs 9–10, 14–15, 17–20, 18, 19, 22  
    Annual Loan Interest Rate 19  
    Down Payment 18  
    Frequency Of Loan Payments 19  
    Interest Deduction Percent 19  
    Miscellaneous Annual Purchase Expense 19  
    Price Of Asset 18  
    Sales Tax On Purchase 18  
    Term Of Loan In Years 18  
Purchase Inputs button 12

## **R**

Refundable Lease Deposit 15  
Report Choices 23, 27, 30  
Reports 12, 23–24, 23, 24  
    Analysis Of Disposition 24  
    Analysis Summary 24  
    Break-Even Analysis (graph) 24  
    Depreciation Schedule 24  
    Inputs Report 24  
    Loan Amortization Schedule 24  
    Present Value Explanation 24  
Requirements 2

## **S**

Sales Tax On Purchase 18, 24  
Sales Tax Upon Signing Lease 16  
Save 8–9, 9  
Save As... 9  
**Save button** 11  
Section 179 Amount 21  
Show (input box) 25  
Starting the DTS Lease vs. Buy Analyzer 3  
System Requirements 2

## **T**

Term Of Loan In Years 18  
The Main Screen 8  
Tool Bar 10, 23, 27, 28  
Tool Bar Buttons 11  
Try This! 27  
Tutorial 10, 27–28, 27

## **U**

Understanding the Lease vs. Buy Analyzer Reports 23  
Update Graph 25, 26, 25–26, 26  
Use Section 179? 21  
User License 31

## **V**

Value Of Asset At End Of Lease 16  
version 7  
View 6, 9–10, 9, 10, 12, 23

## **W**

What is the Tool Bar? 11  
When Are Taxes Paid 6  
Why Is There A Year 0? 5  
Why Use This Program? 1

## **Y**

Year 0 5–6, 5

# Overview

---

## Why Use This Program?

The purpose of the DTS Lease vs. Buy Analyzer is to provide you with total cash and present value cost figures for the economic choices of leasing or buying an asset. Automobiles are the most common usage for this program; however, you can also look at the economics of leasing or buying other assets, such as computers, furniture, or real-estate.

# Installing and Starting

---

## System Requirements

IBM compatible Personal Computer

Microsoft Windows 95/98 or NT (Version 4.0). Please refer to the readme.txt file to see what service packs might be required.

---

## Installation

All commands you need to enter will be typed in **bold** type.

### Installing To A Single Machine

For the purpose of these instructions, we are assuming that your CD drive is drive D, if it is not, please make the appropriate changes. To install the program to a single machine, use the following steps:

5. Click on the **Start** button.
6. Click on the **Run** menu item.
7. Type **D:SETUP** and press the **ENTER** key.
8. Follow the instructions in the installation program.

## **Network Installation**

Network installations instructions are provided in a separate document to customers that have purchased rights to use this program on additional desktops.

---

## **Starting the DTS Lease vs. Buy Analyzer**

The Installation program will create a "Denver Tax Software" Program Manager Group, if it doesn't already exist. The DTS Lease vs. Buy Analyzer will be placed within this group.

To start the Lease vs. Buy Analyzer, double-click on the Denver Tax Software program group, then double-click on the Lease vs. Buy Analyzer icon. This will load the Lease vs. Buy Analyzer and you can begin work!

# Analyzing Leasing and Buying

---

## General Concept

This program analyzes the economic consequences of leasing vs. buying.

A lease is a contract where the user of the item "borrows" that item for a specified period of time, at which point the user of the item normally gives the asset back to the owner. Often the lease contract gives the user a chance to purchase the asset from the real owner at the end of the lease for a specified option price.

---

## Analysis Methods

This program analyzes the cash flows over the life of the lease for both the lease analysis and the buy analysis. Thus, if the lease is for 40 months, both the lease and the buy cashflows will be examined for that period of time.

At the end of the lease, the asset is usually returned to its owner. Because of this, both the lease scenario and buy scenario should be such that the asset is either given up, or sold at the end of the lease term. Let's assume the lease is for 40 months and at the end of the lease the asset is worth \$3,000. The lease and buy scenarios for disposition or sale of that item would be as follows:

### **Lease Scenario:**

The asset worth \$3,000 might be given up, or, if there is an option to purchase the asset at the end of the lease, you might want to purchase it. If the option price is \$2,000 and the asset is worth \$3,000, you would pay \$2,000 to buy the asset, and resell it for \$3,000, pocketing the \$1,000 (\$3,000-\$2,000) profit. If the asset is worth \$3,000, and the option price is \$4,000, you would let the owner take back the asset rather than pay him more than it is worth.

If the leased asset can be acquired and sold for profit, the program figures the cashflow from the gain, and the tax on the sale.

### **Buy Scenario:**

The program assumes the asset is sold for the buy scenario in the same month that the lease term would be up in the lease scenario. Using the above example that would be in the 40th month. The program figures the cashflow from the sale proceeds and any tax cost or savings on the sale.

The program calculates cashflows for both the lease and buy scenarios. It then gives you the net amount of cash paid out and the present value of those payments for each

scenario. Note that amounts paid out, like loan payments, are negative and amounts received, such as tax refunds, are positive.

Even though net cash paid is easier to understand, the net present value cost better reflects economic reality.

---

## Assumptions, Assumptions, Assumptions...

Before we continue, it is important to realize that we are dealing with the future when making these calculations. Because we are dealing with the future, assumptions are unavoidable. It is also important to realize that the same assumptions are going to be made for the lease scenario and the buy scenario. Thus, if an assumption turns out to be wrong for one scenario, it will also be wrong for the other scenario to much the same degree.

The Break-Even Analysis graph is a powerful tool when dealing with assumptions. If you are assuming a Cost of Capital of 10%, but think it would range from 5% to 15%, you could run the graph from 5% to 15%. By doing this you could see if a change in the assumed Cost of Capital would change your results.

---

## How Long Is The Asset Held And How Is It Disposed Of

At the end of the lease the user of the asset can, (1) return the asset to its owner, (2) pay the option price and keep the asset or, (3) pay the option price and sell the asset. To simplify this analysis, the program assumes the following:

3. The asset will either be returned to the owner, if the option price is higher than what the asset is really worth (fair market value), or
4. The asset will be purchased at the option price and immediately sold for fair market value at a profit, if the fair market value is higher than the option price.

If one wants to purchase instead of lease, he or she can pay cash for the entire purchase price or finance the purchase with a loan for all or part of the purchase price. Someone who owns an asset outright, can sell or dispose of that asset at anytime; however, if there is an unpaid loan balance at the time of the sale, that loan will have to be paid off.

To simplify the analysis, the program assumes that a purchaser of the asset would not want to own it any longer than the length of the lease. The primary reason for this assumption is to run both the lease and buy scenarios for the same length of time. Otherwise, you are comparing apples to oranges.

---

## Why Is There A Year 0?

When you run reports for the first time, you will notice that year 0 is included in some of them. The reason for this is that the program can not determine whether cash payments are made in January or December of each year; therefore, all cash payments are assumed to have been made on December 31 of each year.

This is actually how most present value analysis works. Some items, such as down payments or deposits, have immediate cash impact. To give a greater present value to those immediate items they are treated as paid on January 1 of year 1, which for all practical purposes in the world of present value analysis, is December 31 of year 0.

For example, if the lease being contemplated is 3 years, the analysis for both the lease scenario and the buy scenario will be 3 years. The program analyzes the cash flows for years 0,1,2, and 3.

---

## When Are Taxes Paid

Another required assumption is that taxes are paid on December 31 of the year that the related income is received. In reality it doesn't work like that. Sometimes taxes are paid before December 31 using withholding or estimated taxes, sometimes taxes are paid on the following January 15th or April 15th, or sometimes the client leaves for Venezuela and never pays tax! We had to pick a date, so December 31 appeared to be a reasonable assumption.

---

## Present Value - Why Bother?

The easiest analysis to understand is "cash-on-cash." For example, if you spend \$100 on a lease in each of the next three years, your cash cost is \$300. That's easy to figure - \$100 per year times 3 years. Now let us think of this in another way. If you pay \$100 in 1995 dollars, \$100 in 1996 dollars, and \$100 in 1997 dollars, does that add up to \$300 in 1995 dollars? No more so than 100 apples, 100 oranges, and 100 pears adds up to 300 apples.

To make present value clearer we'll look at a better example. Let's say money is worth 10% to you. In other words, you know that you can invest your money and earn 10% on it. This means you can invest \$91 at 10% in 1995 and it will be worth \$100 in 1996, \$83 at 10% in 1995 and it will be worth \$100 in 1997. Thus, to receive \$100 in 1995, \$100 in 1996, and \$100 in 1997 you could invest \$274 (100+91+83) today. This is the equivalent of converting apples, oranges, and pears into apples. \$274 is the present value of \$100 today, \$100 next year, and \$100 the year after that, if you can invest your money at 10%. This percentage is called the discount rate, or Cost of Capital.

Thus, if a scenario indicates the present value cost is \$12,234, that is equivalent to paying \$12,234 now to eliminate all future lease or purchase obligations to own that asset.

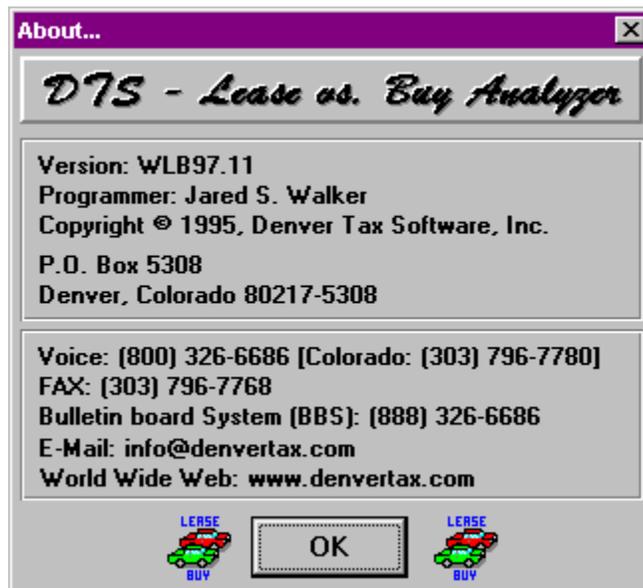
Present value analysis is the most economically sound way to view a scenario where money is received or paid out over more than one year.

# Using The Lease vs. Buy Analyzer

---

## Getting Started

When you load the DTS - Lease vs. Buy Analyzer you will first see the About box. The About box provides information on the program's name, version number, and Denver Tax Software's address, phone numbers, and e-mail address. If you ever need any of this information remember that you can get it here. The About box should look similar to this:



To close the About box and start your work, click on the **OK** button or press **ENTER**.

---

## Entering Information

The Lease vs. Buy Analyzer uses the normal input procedures that most Windows programs use. To move from one input to another you can either use the mouse to select the input item you want, or press the **TAB** key to move through them.

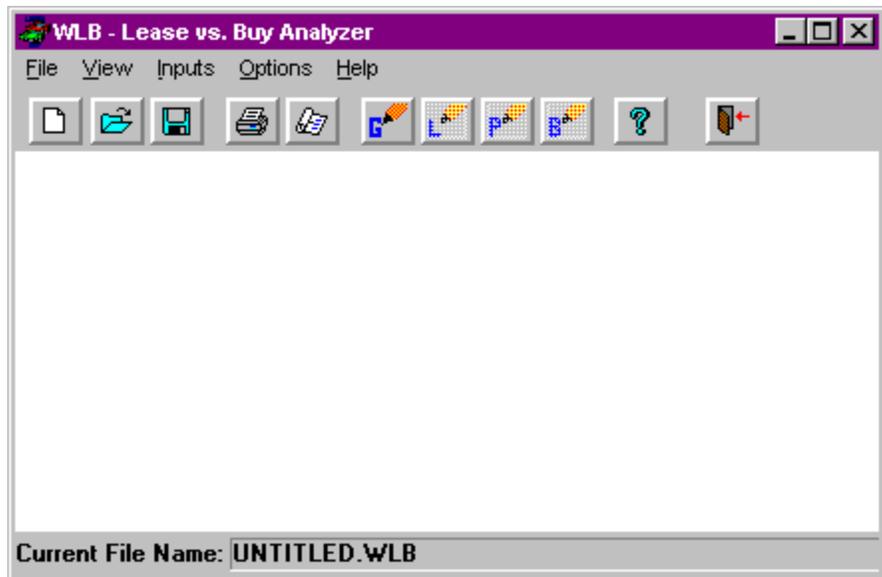
To exit an input form, and keep any changes you have made, either click on the **OK** button, or **TAB** to the **OK** button and press **ENTER**. To exit an input form, but not keep the data you have entered, use the same process as above with the **Cancel** button rather than the **OK** button. If you use any other button to exit an Input form your changes will be kept.

You may find it easier to enter numeric information using the numeric keypad. If so, make sure the **Num Lock** key is on.

---

## The Main Screen

The Main Screen is similar to your desktop. From here you can select the different actions you want to perform. The Main Screen contains the various menus, and buttons, that you will use to do your work. The Main Screen should look like the following:



Each menu is listed below with a description of the actions performed by the menu items.

### File

#### New

The New menu item will prepare a new file for you to work with. Whenever you start a new file you should also use the **Save As...** menu item to name it.

#### Open

The Open... menu item allows you to load an old file from disk.

## **Save**

The **Save** menu item allows you to save your current work to a file. If you are saving a new file, you should first use the **Save As...** menu item to give the file a name (unless you have already named it). If the file doesn't have a name it will be saved as UNTITLED.WLB.

## **Save As...**

The **Save As...** menu item allows you to enter a file name and directory to save your file in. It is a good idea to name the file in a way that will allow you to easily identify it later. For example, if the client's name is Judy Holland, you might want to name the file JHOLL01.WLB. Remember that names must be no longer than eight(8) characters, followed by .WLB.

## **Print...**

The **Print...** menu item allows you to select and print reports generated from the file you are working on. The **Print...** menu item will give you the option of printing the Break-Even Analysis graph; however, this report will not automatically print. Instead, you will see the report on screen. You can then get the exact graph you want and print it.

## **Exit**

The **Exit** menu item quits the Lease vs. Buy Analyzer. If you have not saved your work to disk, it will first prompt you to save it.

## **View**

### **Display Reports...**

The **Display Reports...** menu item is similar to the **File, Print...** menu item except that the reports are displayed on your monitor. We suggest that you go over your reports with this menu item before printing them to make sure your work is correct.

## **Inputs**

### **General...**

The **General ...** menu item will display the General Inputs form. This form is where you enter general information such as the client's name, tax rates, Cost of Capital, etc... Further discussion of this form can be found in the section, "General Inputs" on page 18.

### **Lease...**

The **Lease...** menu item will display the Lease Inputs form. This form is where you enter information pertaining to leasing the asset. This menu item will only be available if the General Inputs form has been completed. Further discussion is in the section "Lease Inputs" on page 20.

### **Purchase...**

The **Purchase...** menu item will display the Purchase Inputs form. This form is where you enter information pertaining to purchasing the asset. This

menu item will only be available if the General Inputs form has been completed. Further discussion is in the section "Purchase Inputs" on page 23.

### **Business...**

The **Business...** menu item will display the Business Inputs form. If you have indicated that the asset is used for business purposes, you will use this form to enter information pertinent to the asset's business usage. This menu item will only be available if the General, Lease, and Purchase Inputs forms have been completed and the asset is used for business purposes. Further discussion is in the section "Business Inputs" on page 25.

## **Options**

### **Tool Bar**

The Tool Bar menu item allows you to turn the Tool Bar on and off. When it is turned on there is a checkmark in front of the menu item and the Tool Bar will be visible on the Main Screen. See the chapter "The Tool Bar", on page 16.

### **Color Printer**

The **Color Printer** menu item allows you to specify whether or not you have a color printer. When there is a checkmark in front of this item it indicates that you have a color printer. Clicking on this menu item will toggle the checkmark on and off. If you have a color printer, checking this menu item will allow you to print the Break-Even Analysis graph in color. If you do not have a color printer, make sure you do not select **Color Printer** or your printed graphs may be unreadable.

## **Help**

### **Contents...**

The **Contents...** menu item will load the Lease vs. Buy Analyzer's on-line help system. The on-line help system provides you with a quick way to view this manual and get help while working with the program.

### **Help on Help...**

The **Help on Help...** menu item loads an on-line tutorial that will explain how to use the Lease vs. Buy Analyzer's on-line help system.

### **About...**

The **About...** menu item loads the program's About box, providing you with information on this program, and on Denver Tax Software, Inc.

# The Tool Bar

---

## What is the Tool Bar?

The Tool Bar is a panel that appears on the Main Screen and provides a quick way to access menu items. Each button on the Tool Bar represents a frequently used menu item. To use a button on the Tool Bar you only need to click on the button, and the same actions will be performed that would be if you used the menu item.

The Tool Bar can be turned on and off using the **Options, Tool Bar** menu item.

The Tool Bar looks like the following:



---

## Tool Bar Buttons

### **New**

The New button performs the same action as the **File, New** menu item (see page 13).

### **Open**

The Open button performs the same action as the **File, Open...** menu item (see page 13).

### **Save**

The Save button performs the same action as the **File, Save** menu item (see page 14), unless the file hasn't been saved (or is named UNTITLED.WLB). If it hasn't been saved it performs the same action as the **File, Save As...** menu item (see page 14).

### **Print**

The Print button performs the same action as the **File, Print...** menu item (see page 14).

## **Display**

The Display button performs the same action as the **View, Display Reports...** menu item (see page 14).

## **General Inputs**

The General Inputs button performs the same action as the **Inputs, General...** menu item (see page 14).

## **Lease Inputs**

The Lease Inputs button performs the same action as the **Inputs, Lease...** menu item (see page 14). This button is only available if the General Inputs form has been completed.

## **Purchase Inputs**

The Purchase Inputs button performs the same action as the **Inputs, Purchase...** menu item (see page 14). This button is only available if the General Inputs form has been completed.

## **Business Inputs**

The Business Inputs button performs the same action as the **Inputs, Business...** menu item (see page 15). This button is only available if the General, Lease, and Purchase Inputs forms have been completed and the asset has business usage.

## **Help**

The Help button performs the same action as the **Help, Contents...** menu item (see page 15).

# Inputs

---

## General Inputs

General Inputs (test (data given by DMK))

Name of Buyer: Mrs. Example

Optional Line: Calculation on 03/18/97

Description of Asset: auto

Cost of Capital (7.5% = 7.5): 10

Business Use Percent (75% = 75): 75

Ordinary Marginal Tax Rate (25.5% = 25.5): 35

Marginal Tax Rate on Sale of Asset (28% = 28): 28

Lease... Purchase... Business... OK Cancel

### Name of Buyer

Enter the name of the prospective buyer (or lessee) for the asset.

### Optional Second Line

Enter any additional information here. You may want to enter anything that will help you better identify this buyer. It is also useful to enter the date you ran the calculation. This information will be shown in report headings, except for the Break-Even Analysis (graph) report.

### Description of Asset

This input is for you to describe the asset that may be purchased or leased. This is often useful if you are analyzing more than one possible purchase or lease for a client.

## Cost of Capital

The Cost of Capital is the discount or interest rate used to convert future cashflows to present values. This can be a difficult input to figure out, but it is very important to the analysis! If you enter your best estimate for Cost of Capital you can use the Break Even Analysis graph to quickly see how the results would change for a certain range of Cost of Capital inputs. For more information on Cost of Capital see the section "Present Value - Why Bother?" on page 11.

Make sure you **do not** enter the decimal equivalent. Enter 25 for 25%, not .25!

## Business Use Percent

Enter the percent amount of time the asset is used for business purposes. If it is always used for business purposes enter 100. If it is never used for business, enter 0. If it is used four out of every five days for business, enter 80.

Make sure you **do not** enter the decimal equivalent. Enter 75 for 75%, not .75!

## Ordinary Marginal Tax Rate

This is the combined state and federal marginal tax rate on ordinary income for the person or business for whom this calculation is being made.

Make sure you **do not** enter the decimal equivalent. Enter 25 for 25%, not .25!

## Marginal Tax Rate On Sale Of Asset

This is the marginal tax rate on income from *gain* on the sale of assets for the person or business for whom this calculation is being made. This *could* be the same as the Ordinary Marginal Tax Rate, described above.

Make sure you **do not** enter the decimal equivalent. Enter 25 for 25%, not .25!

## Buttons

### **OK**

The **OK** button exits the General Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### **Cancel**

The **Cancel** button exits the General Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### **Lease...**

The **Lease...** button exits the General Inputs form, keeping any changes made to the form, and loads the Lease Inputs form.

### **Purchase...**

The **Purchase...** button exits the General Inputs form, keeping any changes made to the form, and loads the Purchase Inputs form.

## Business...

The **Business...** button exits the General Inputs form, keeping any changes made to the form, and loads the Business Inputs form. This button is only available if the Business Use Percent is greater than zero (0), and the Lease and Purchase Inputs forms have been completed.

## Lease Inputs

**Lease Inputs (Mrs. Example)**

**Deposits and tax:**

Non-Refundable Lease Deposit:  Deduct Non-Refundable Deposit:  
 End  
 Amortize  
 Beginning

Refundable Lease Deposit:

Sales Tax Upon Signing Lease:

**Lease payment information:**

Normal Lease Payment:  Frequency of Lease Payments:  
 Monthly (12/year)  
 Quarterly (4/year)  
 Semi-Annually (2/year)  
 Annually (1/year)

Number of Lease Payments:

**Lease expenses:**

Miscellaneous Annual Lease Expense:

End of Lease Expense:

**End of lease values:**

Value of Asset at End of Lease:

Lease Option Price:

## Non-Refundable Lease Deposit

This is a deposit that must be paid 'up-front' on the lease and is not refunded. Do not include the first month's lease payment in this amount. The first month's lease payment should be included in the Number Of Lease Payments input.

## Deduct Non-Refundable Deposit

Enter whether you want to deduct the Non-Refundable Lease Deposit at the End of the lease, Beginning of the lease, or if you want it Amortized over the period of the lease. Usually lease deposits are deducted at the End of the lease; however, if the lease deposit is a significant amount, it may be appropriate to amortize the deduction.

## Refundable Lease Deposit

This is a deposit that the lessor takes at the beginning of the lease and almost certainly returns at the end of the lease. There is no tax consequence for this type of

deposit. It will show as a negative cashflow at the beginning of the lease and a positive cashflow at the end of the lease.

## Sales Tax Upon Signing Lease

This is the sales tax charged on the *Initial Acquisition* of the leased asset. Under some circumstances, lessees have to pay sales tax upon signing the lease. If that is your situation, enter that amount of sales tax now. In many situations the sales tax is added to the Normal Lease Payment. If this is the case, enter zero for this input and include the sales tax in the Normal Lease Payment.

Example 1: The lessee must pay \$1,000 of sales tax when the lease contract is signed. In this case \$1,000 would be entered in this input.

Example 2: The lessee does not pay sales tax when the lease is signed, but does pay sales tax of \$10 per month in addition to the monthly lease payment of \$200. In this case, leave this input blank and enter \$210 for the Normal Lease Payment.

## Normal Lease Payment.

This is the amount paid during each period of the lease.

## Number Of Lease Payments

This is the number of periodic lease payments. **Do not** include any prepaid amounts in this. If the lease contract indicates that there are 48 lease payments, but that the last two payments must be prepaid, you would enter 46 (48-2). The first lease payment should be included in this.

## Frequency Of Lease Payments

This is the number of times per year that lease payments must be made. Usually this would be monthly, but in some cases lease payments may also be made quarterly (4 payments per year), semi-annually (2 payments per year), or annually (1 payment per year).

## Miscellaneous Annual Lease Expense

In certain situations the lessee may have to pay an additional expense each year. An example of this is a required service contract. Enter any such payments here.

**Do not** include Normal Lease Payments here.

**Do not** include any payments that would be incurred regardless of whether the asset is purchased or leased.

## End Of Lease Expense

Enter any penalty that may be incurred at the end of the lease. Often this type of payment is a penalty for excessive miles driven during the lease period.

## Value Of Asset At End Of Lease

Enter what you think the asset might be worth at the end of the lease. This can be a very hard input to decide on if you don't own a crystal ball! If the lease is less than 5

years this can be a very important input. The Break-Even Analysis graph can be very useful with this input, because you can examine a range of possible values.

## **Lease Option Price**

This is the option price listed in the lease contract to purchase the leased asset at the end of the lease.

## **Buttons**

### ***OK***

The **OK** button exits the Lease Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### ***Cancel***

The **Cancel** button exits the Lease Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### ***Purchase...***

The **Purchase...** button exits the Lease Inputs form, keeping any changes made to the form, and loads the Purchase Inputs form.

### ***Business...***

The **Business...** button exits the Lease Inputs form, keeping any changes made to the form, and loads the Business Inputs form. This button is only available if the Business Use Percent is greater than zero (0), and the General and Purchase Inputs forms have been completed.

### ***General...***

The **General...** button exits the Lease Inputs form, keeping any changes made to the form, and loads the General Inputs form.

## Purchase Inputs

**Purchase Inputs (Mrs. Example)**

**Purchase costs:**

Price of Asset: 40000.00

Sales Tax on Purchase: \$1,000.00

Down Payment: \$5,000.00

**Loan related items:**

Term of Loan in Years: 5

Frequency of Loan Payments:

- Monthly (12/year)
- Quarterly (4/year)
- Semi-Annually (2/year)
- Annually (1/year)

Miscellaneous Annual Purchase Expense: \$250.00

**Interest/interest-related items:**

Annual Loan Interest Rate (8.75%=8.75): 8

Interest Deduction Percent (10%=10): 75

Business... General... Lease... OK Cancel

### Price Of Asset

Enter the *cash* cost to purchase the asset outright. Even if the prospective buyer is almost certain to lease the asset they should know what a reasonable purchase price is.

### Sales Tax On Purchase

Enter the sales tax that would be charged on the purchase of the asset. In many cases the sales tax can be included in the purchase price, in that case you can ignore this input. If the asset might be a 'luxury' automobile you need to enter the sales tax here because the Lease Inclusion Amount is based on the value of the auto *before* sales tax.

### Down Payment

This is the up-front payment on the asset. If the prospective buyer is purchasing the asset outright, the Down Payment should match the Price Of Asset + Sales Tax On Purchase.

### Term Of Loan In Years

This is the number of years the loan is outstanding. Thus, if the loan is for 48 months you would enter 4.

## Frequency Of Loan Payments

This is the number of times per year that loan payments must be made. Usually this would be monthly, but in some cases loan payments may also be made quarterly (4 payments per year), semi-annually (2 payments per year), or annually (1 payment per year).

## Miscellaneous Annual Purchase Expense

In certain situations the buyer may have to pay an additional expense each year. An example of this is a service contract. Enter any such payments here.

**Do not** include Normal Loan Payments here.

**Do not** include any payments that would be incurred regardless of whether the asset is purchased or leased.

## Annual Loan Interest Rate

This is the annual rate charged on the loan. Because you may have different possible rates, the Break-Even Analysis graph is useful to look at range of possibilities.

Make sure you **do not** enter the decimal equivalent. Enter 8.5 for 8.5%, not .085!

## Interest Deduction Percent

Enter the percent of annual interest paid that can be deducted. If you enter 60%, for example, the program will take 60% of the annual interest as a reduction of taxable income. Under some circumstances, when home equity loans are used, one might want to enter a larger Interest Deduction Percent than Business Use Percent.

In general, if the asset is a personal asset, none of the interest is deductible. If the asset is owned by a corporation, the percent of deductible interest should not exceed the Business Use Percent.

Make sure you **do not** enter the decimal equivalent. Enter 75 for 75%, not .75!

## Buttons

### ***OK***

The **OK** button exits the Purchase Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### ***Cancel***

The **Cancel** button exits the Purchase Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### ***Business...***

The **Business...** button exits the Purchase Inputs form, keeping any changes made to the form, and loads the Business Inputs form. This button is only available if the Business Use Percent is greater than zero (0), and the General and Lease Inputs forms have been completed.

### General...

The **General...** button exits the Purchase Inputs form, keeping any changes made to the form, and loads the General Inputs form.

### Lease...

The **Lease...** button exits the Purchase Inputs form, keeping any changes made to the form, and loads the Lease Inputs form.

---

## Business Inputs

The Business Inputs form is only available if the Business Use Percent, entered in the General Inputs form, is greater than zero and the General, Lease, and Purchase Inputs forms have been completed.

**Business Inputs (Mrs. Example)**

**Asset Information:**

Is this an Automobile?  
 Yes  
 No

Is this Listed Property?  
 Yes  
 No

**Depreciation:**

Depreciable Life:

**Depreciation Method:**

Automobile  
 150% Declining Balance  
 Double Declining Balance  
 Straight Line  
 No Depreciation

**Section 179 Depreciation:**

Use Section 179?  
 Yes  
 No

Section 179 Amount:

General... Lease... Purchase... OK Cancel

### Is This An Automobile?

Click on **Yes** if the asset is an automobile, and **No** if it isn't. If you enter **No**, but indicate that Automobile depreciation is to be used, the results could be erroneous.

### Is This Listed Property?

Click on **Yes** if the asset is listed property and **No** if it isn't. This input is only important if the Business Use Percent is less than 100%.

Listed property is any passenger automobile, any other property used as a means for transportation, any property of a type generally used for purposes of entertainment, recreation or amusement, any computer or peripheral equipment, any cellular telephone, or other property defined as listed in the regulations. See Internal Revenue Code Section 280F(d)(4) for more information.

## Depreciable Life

Enter the number of years of depreciation, or 0 if no depreciation is allowed.

For a listing of some common asset lives, see "Appendix A" on page 38.

## Depreciation Method

Click on the depreciation method that applies to the asset. The Lease vs. Buy Analyzer will try to pick the right method for you; however, you should check to make sure it is correct.

Usually 3, 5, 7, or 10 year MACRS property uses Double Declining Balance, 15 or 20 year MACRS usually uses 150% Declining Balance, and 27.5 or 31.5 year MACRS usually uses Straight Line. The program will assume MACRS with the half year convention based on current income tax law.

For real estate, this causes an inaccuracy in that real property is supposed to use a mid month, not a mid year convention. Thus, real estate should have about 50% more depreciation in the first year than what the Lease. vs. Buy Analyzer calculates. This program was intended primarily for personal property, not real estate. Please call us at 1-800-326-6686 if you want to use this program for real estate.

## Use Section 179?

Click on **Yes** if you want to use Section 179 depreciation, otherwise click on **No**. If you are considering leasing for its supposed tax benefits and the asset is not an automobile, you might want to consider using Section 179 in your analysis. If you are not a tax professional, you should discuss this with one first.

Note: §179 depreciation can not be used with real estate.

## Section 179 Amount

This is only relevant if you answered **Yes** to **Use Section 179?**

Enter the amount of Section 179 depreciation you want. If you are using Section 179 with an auto, enter 17,500 and the Lease vs. Buy Analyzer will determine the correct deduction.

Note: Internal Revenue Code Section 179 currently permits expensing of up to \$17,500 of the purchase of certain new assets. Please refer to that code section. Historically, this limit, now \$17,500, has been subject to change.

## Buttons

### **OK**

The **OK** button exits the Business Inputs form and returns to the Main Screen, keeping any changes you made to the form.

### ***Cancel***

The **Cancel** button exits the Business Inputs form and returns to the Main Screen, canceling any changes you made to the form.

### ***General...***

The **General...** button exits the Business Inputs form, keeping any changes made to the form, and loads the General Inputs form.

### ***Lease...***

The **Lease...** button exits the Business Inputs form, keeping any changes made to the form, and loads the Lease Inputs form.

### ***Purchase...***

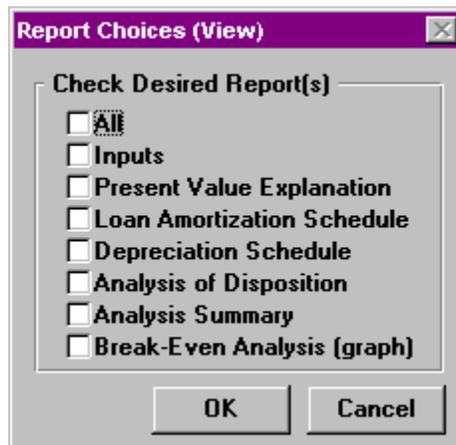
The **Purchase...** button exits the Business Inputs form, keeping any changes made to the form, and loads the Purchase Inputs form.

# Understanding the Lease vs. Buy Analyzer Reports

---

## Deciding Which Reports To View Or Print

When you select the **V**iew, **D**isplay Reports... menu item, **F**ile, **P**rint... menu item, **P**rint Tool Bar button, or **D**isplay Tool Bar button you will be presented with a screen allowing you to decide which reports you want to view or print. If you are printing you will first see the Printer Options screen, which allows you to enter the number of copies you want and other printer options. The Report Choices screen looks like the following:



If you select the All option you will get all of the reports listed, otherwise you will only get those that you select. To select an option, click on the box next to the name and an X will appear in it indicating you have made that selection. If you select All and then decide you do not want all of the reports, you must click on All again, and then remove the reports you don't want by clicking on them so that the X disappears.

Note: If you have not entered all of the required inputs, the Lease vs. Buy Analyzer will not display this screen. Instead it will show you what inputs, or Input forms, still need to be completed.

Note: The Break-Even Analysis (graph) report does not print automatically. Instead you will see the Break-Even Analysis (graph) screen. To print, you must first choose the graph you desire and then press the **P**rint button. See the section "Break-Even Analysis (graph)" on page 29.

---

## Inputs Report

This report provides you with the inputs you entered. It is a good way to verify all of your inputs.

---

## Present Value Explanation

The Present Value Explanation report gives a brief explanation of what present value means and why it is important. If you are doing this analysis for someone else, you can give this report to them to explain what "present value" means.

---

## Loan Amortization Schedule

If the inputs indicate that the Price Of Asset + Sales Tax On Purchase is more than the Down Payment, a loan amortization schedule is available. In this report the loan begins in year 1 and runs until either the loan is paid off or the lease term has expired. If the loan is for 10 years, and the lease is for 3 years, the analysis assumes that the asset will be sold in the same month that the lease expires. Therefore, the loan would have to be paid off before the asset can be sold.

---

## Depreciation Schedule

This report is available only if you have indicated in the Business Inputs form that depreciation is applicable. This shows what the depreciable basis is, as well as, how the asset is depreciated. If appropriate, it indicates when depreciation switches from accelerated MACRS to straight line MACRS.

---

## Analysis Of Disposition

This report shows what happens when the asset is disposed of or sold at the end of the lease or ownership period.

---

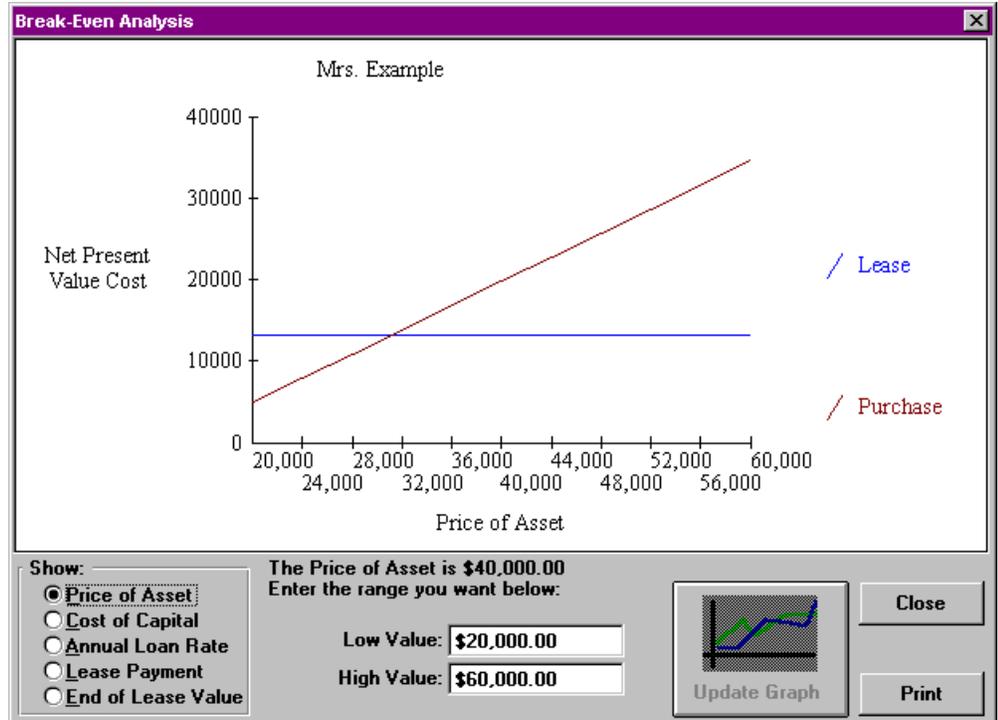
## Analysis Summary

The Analysis Summary is actually three reports. The first two reports show a year-by-year analysis of the cashflows for the Lease and Purchase Scenarios, respectively. In addition to the year-by-year analysis, the last report is a comparison of the Lease and Buy Scenarios. A positive amount indicates how much money would be saved by leasing the asset, and a negative amount shows how much money would be saved by purchasing the asset.

---

## Break-Even Analysis (graph)

The Break-Even Analysis report is probably the most useful report available. This usefulness comes from its ability to display a range of possible values for certain inputs, and the results produced within that range. It is also the only report that requires extra input to use. When printing or viewing this report you will see a screen similar to the following:



The Break-Even Analysis allows you to vary the input on the Price Of Asset, Cost of Capital, Annual Loan Rate, Lease Payment, and End of Lease Value. By entering the range you would like to vary the input over, you can see whether leasing or purchasing is a better choice.

Using this report is actually fairly simple. In the Show box (in the lower left corner of the report) click on the input item you would like to examine. The Lease vs. Buy Analyzer will then enter a Low Value and High Value for you, or if you have previously changed the values for that particular input it will enter the values you used. Next, if you wish to change them, enter the Low Value you desire and then the High Value.

At this point you should have noticed that when you change any of these three inputs the Update Graph button becomes available and the 'Press Update Graph' sign appears above the button. This is to let you know that the graph displayed no longer matches the inputs you have entered. Press the Update Graph button to see the new graph.

The following are the different options you have on the Break-Even Analysis (graph) report.

## Show (input box)

This is the list of selections in the lower left corner of the report.

Click on the input that you would like to display a graph for. After doing so, you may also want to change the Low Value and High Value before updating the graph.

## Low Value

Enter the lowest value you would like displayed on the graph for the input you selected in the Show box.

## High Value

Enter the highest value you would like displayed on the graph for the input you selected in the Show box.

## Buttons

### ***Update Graph***

Whenever you make a change to the Show input box, Low Value input or High Value input this button will be available. To update and display the new graph you must press this button. If this button is not available it means the graph displayed matches the inputs in the Show input box, Low Value input, and High Value input.

### ***Close***

This button will exit the Break-Even Analysis (graph) report.

### ***Print***

Clicking on this button will print the graph to your printer. If you have a color printer and have checked the **Options, Color Printer** menu item the graph will be printed in color. Otherwise the graph will be printed in black and white and symbols will be added to the lines to indicate which is the Lease Scenario and which is the Purchase Scenario. For more information on color printers see the section "Color Printer" on page 15.

Note: If you have checked the **Options, Color Printer** menu item, but do not have a color printer, you will probably not be able to determine which line represents the Lease Scenario and which represents the Purchase Scenario.

# Tutorial - Example

---

## Overview

This chapter provides an opportunity to learn how the DTS - Lease vs. Buy Analyzer works. We suggest you go through this example, even if you have used the DOS version, so that you understand how it works before running calculations for clients or yourself.

This example will show you how to fill out the Input forms, how to display reports, and how to use the Break-Even Analysis (graph) report.

---

## Try This!

In this example, when you are asked to 'click' on an item you should either click on that item with your mouse or use the equivalent keyboard commands to activate it. If you are unfamiliar with using the Windows operating environment we suggest you either read your Windows manual, use Windows Help, or have someone teach you.

- Double-click on the "Denver Tax Software" Program Manager Group
- Double-click on the "Lease vs. Buy" icon.

You should now see the Lease vs. Buy Analyzer's About box.

- Click on the **OK** button.

The Main Screen should now appear.

- Click on **F**ile.
- Click on **N**ew.
- Click on **F**ile.
- Click on **S**ave, **A**s...
- Type the name **WLBTEST.WLB** and click on the **OK** button, or press the **ENTER** key.

You have opened a new file and named it WLBTEST.WLB. Now continue:

- Click on **I**ntputs.
- Click on **G**eneral.

The General Inputs form should appear,

- Type in a name.

- Press the **TAB** key.
- Type in any additional information you would like here.
- Press the **TAB** key.
- Type in **Tutorial Motors, Example Lxi**
- Press the **TAB** key.
- Enter **8.5** for Cost of Capital.
- Press the **TAB** key.
- Enter **75** for Business Use Percent.
- Press the **TAB** key.
- Enter **35** for the Ordinary Marginal Tax Rate
- Press the **TAB** key.
- Enter **28.5** for the Marginal Tax Rate on Sale of Asset.
- Click on the **OK** button.

You should now be back at the Main Screen. If the Tool Bar,



*isn't* displayed on your Main Screen do the following steps:

- Click on **O**ptions.
- Click on **T**ool Bar.

Now you should see the Tool Bar. You will notice that the buttons for General Inputs, Lease Inputs, and Purchase Inputs are all available. The Business Inputs form is not available yet because we have not completed the Lease or Purchase Inputs forms. Let's do those next:

- Click on the **Lease Inputs** button 

Now the Lease Inputs form should be on the screen.

- Enter **500** for the Non-Refundable Lease Deposit.
- Press the **TAB** key.
- Click on **End** in the Deduct Non-Refundable Lease Deposit box.
- Press the **TAB** key.
- Press the **TAB** key again. (We won't have a refundable deposit for this example.)
- Enter **100** for Sales Tax Upon Signing Lease.
- Press the **TAB** key.
- Enter **500** for the Normal Lease Payment.
- Press the **TAB** key.
- Enter **47** for the Number Of Lease Payments.
- Click on **Monthly** in the Frequency Of Lease Payments box.

- Press the **TAB** key.
- Enter **400** for the Miscellaneous Annual Lease Expense.
- Press the **TAB** key.
- Enter **200** for the End of Lease Expense.
- Press the **TAB** key.
- Enter **20000** for the Value of Asset at End of Lease.
- Press the **TAB** key.
- Enter **15000** for the Lease Option Price.
- Click on the **Purchase...** button

The Lease Inputs form should disappear and the Purchase Inputs form should appear. Now,

- Enter **40000** for the Price Of Asset.
- Press the **TAB** key.
- Enter **5000** for the Down Payment.
- Press the **TAB** key.
- Enter **1000** for the Sales Tax on Purchase.
- Press the **TAB** key.
- Enter **5** for the Term of Loan in Years.
- Click on **Monthly** in the Frequency of Payments box.
- Press the **TAB** key.
- Enter **8** for the Annual Loan Interest Rate.
- Press the **TAB** key.

Notice that the Interest Deduction Percent input already has 75 in it. That is because it usually can be no greater than the Business Use Percent, so the Lease vs. Buy Analyzer enters the Business Use Percent to remind you.

- Press the **TAB** key.
- Press the **ENTER** key.

Now you should again be at the Main Screen. This time you should notice that the Business button is available.

- Click on **I**nputs.
- Click on **B**usiness.

The Business Inputs form should appear.

- Click on the Depreciable Life input box.
- Use the **Delete** or **Backspace** keys to delete the contents.
- Enter **12**.
- Press the **TAB** key.

Notice that the Depreciation Method input box is now set to Double Declining Balance. The Lease vs. Buy Analyzer will always try to determine for you what the

method should be. You should *always verify* that the method it selects is correct before going on.

- Click on the **OK** button.

Now we are back at the Main Screen again, and all our inputs are complete. Let's view the results to see whether we should be leasing or buying!

- Click on the **Display** button .

The Report Choices (View) screen should appear.

- Click on **All**.
- Click on **OK**.

Depending on your machine you may have to wait a little while for all the reports to generate and appear on the screen. When they do you can see the results of the calculations, and whether you should lease or buy. Click on the Close button when you are done looking at a report. When you get to the Break-Even Analysis (graph) report continue with the tutorial below.

At this point you should have the Break-Even Analysis (graph) report on the screen. It should be showing a graph of the Price of Asset input varying over a range of input values. Now,

- Click on **Lease Payment** in the Show input box.
- Click on the **Update Graph** button.

The graph will be updated to represent the new inputs. You can now see that if the Lease Payment is a little over \$700 the Lease and Purchase scenarios will 'Break-Even.' To find out exactly where, follow these steps:

- Click in the Low Value box.
- Using the **Delete** or **Backspace** keys erase the contents.
- Enter **700**.
- Press the **TAB** key.
- Enter **730**.
- Click on the **Update Graph** button again.

Notice that you have now homed in on where they meet. Try it again, using a **Low Value** of 710 and a **High Value** of 720. Make sure you press the **Update Graph** button. If you keep at it you will find that they 'break-even' between \$715 and \$716 dollars.

Now, if you want to print your graph, just click on the **Print** button. Then click on **Close** and you will be back to the Main Screen.

You are now ready to use the Denver Tax Software - Lease vs. Buy Analyzer!

# LICENSE AGREEMENT

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## Lease vs. Buy Analyzer

by

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# Appendix A

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## Common Asset Lives Based On Type Of Asset

Asset	Life
Office furniture, fixtures & equipment	7
Computers	5
Cars (subject to special rules)	5
Typewriters, calculators, adding machines, copiers, and other data handling equipment other than computers	5
Trucks	5
Real Estate -residential rental	27.5
Real Estate - non-residential	31.5

---

## Common Asset Lives Based On Activity

Activity Used In	Life
Personal & Professional services, wholesale & retail trades	5
Agricultural	7
Cattle, breeding or dairy	5
Cattle, breeding or work	7
Hogs, breeding	3
Mining	7
Oil & gas drilling	5
Oil & gas exploration	7
Construction	5
Printing & publishing	7
Chemical manufacturing	5
Manufacturing of electronic components	5