

“Normal” Cruise Techniques

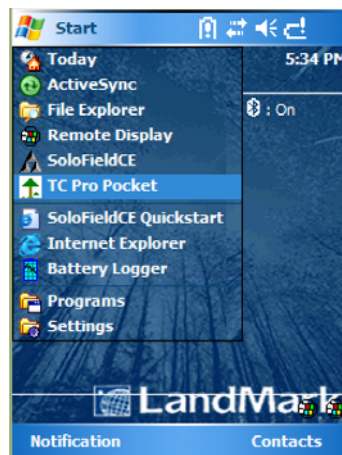
- Intro to TCruiseCE
- Collecting Field Data
 - Collecting data for a Form Class Cruise
 - Collecting data for a Profile Function Cruise
- Transferring Cruise Data to the PC
- Calculating Volumes in TCruise Office

Intro to TCruiseCE

Opening TCruiseCE

To open TCruiseCE, select
Start > **TC Pro Pocket**.

If you programmed TCruise
as one of your Button
shortcuts, you may also
open it by selecting the
upper left button on the
Recon X or Ranger X.

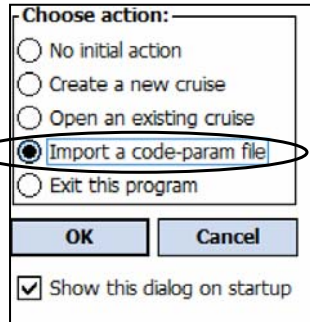


Intro to TCruiseCE

Loading a .tcc file

The first screen you will encounter in TCruise gives you 5 initial options.

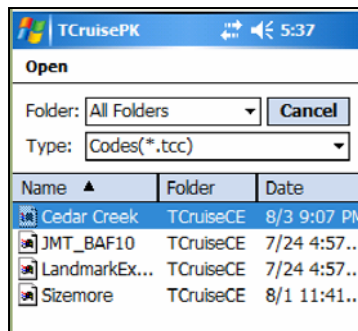
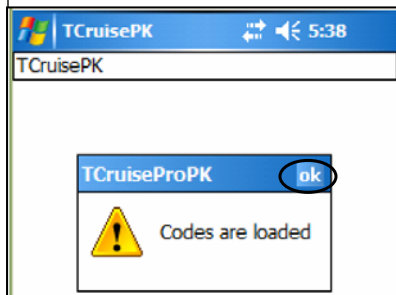
1. Take No initial action
2. Create a new cruise – This will prompt you to save a .tcc file. I do not recommend this choice.
3. Open an existing cruise – This allows you to open a cruise that you have already started.
4. **Import a code-param file** – This is where you want to go to begin a new cruise.
5. Exit the program



Intro to TCruiseCE

Loading a .tcc file

You should then be sent to the TCruiseCE folder where you placed your .tcc file. Click on that file and load it.



Once it is loaded, you will get the following message: Codes are loaded. Click OK.

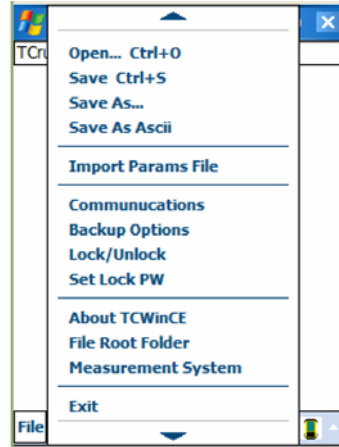
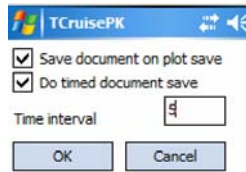
Intro to TCruiseCE

Setting up TCruise on the Handheld

File Menu

The File Menu has basic file operations like New, Open, Save and Exit.

Also there is a Backup Options menu which will automatically prompt you to do a backup on the specified time interval. This is especially useful with a 100% Tally or Strip cruise where you are entering lots of trees in one plot.



Intro to TCruiseCE

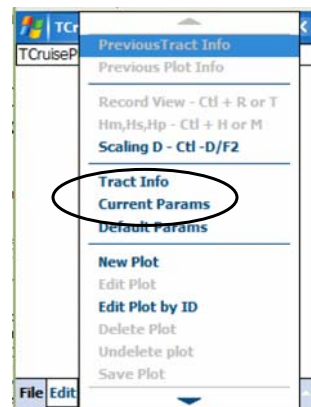
Setting up TCruise on the Handheld

Edit Menu

The Edit Menu gives you access to the **Tract Info** screen and **Current Parameters** that are in the template you set up. Both of these selections can be filled out or modified in the field or office.

Area	<input type="text"/>	Date	<input type="text"/>
Name	<input type="text"/>		
Cruise	<input type="text"/>		
Location	<input type="text"/>		
Owner	<input type="text"/>		
Other Info	<input type="text"/>		
	<input type="button" value="OK"/>	<input type="button" value="Custom Info"/>	<input type="button" value="Cancel"/>

Cruise method	<input type="text" value="200"/>	Dbh precision	<input type="text" value="1.0 units"/>
Plot size or BAF	<input type="text" value="10"/> <input type="text" value="0.05"/>	Grow yrs	<input type="text" value="10"/>
Rp/5m ps	<input type="text" value="0.01"/>	Plot	<input type="text" value="95"/>
Pulpwood plot type	<input type="text" value="Plot"/>	Cur. Params	<input type="text" value="SI"/>
PW plot size or BAF	<input type="text" value="0.1"/>	Si age	<input type="text" value="PIN"/>
<input type="checkbox"/> Use PW plot size/BAF		Si spc	<input type="text" value="PIN"/>
Default species code	<input type="text" value="PIN"/>		<input type="button" value="OK"/>
Default frequency	<input type="text" value="1"/>		<input type="button" value="Cancel"/>
Default tree product	<input type="text" value="AA"/>		



NOTE: Because TCruise saves the Cruise Method on a plot by plot basis, you can change the cruise method in the field at the beginning of the cruise or between different stratum. It is better, however, for most people to have a Plot template and a BAF 10 template and a BAF 20 template, etc.

Intro to TCruiseCE

Setting up TCruise on the Handheld

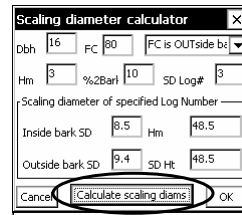
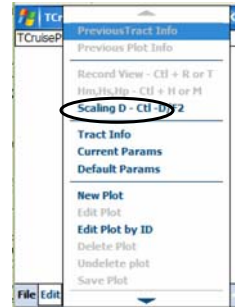
Edit Menu

The Edit Menu also gives you access to some advanced functions like checking the **Scaling end diameter** of any log of any stem.

In this example, we input the following parameters:

- Dbh of 16"
- Outside bark form class of 80
- 3 log merch height tree
- Double bark thickness of 10%

We want to know the scaling end diameter of the top log (#3). Click **Calculate scaling diams** and TC gives us the inside and outside diameters at that height.



Intro to TCruiseCE

Setting up TCruise on the Handheld

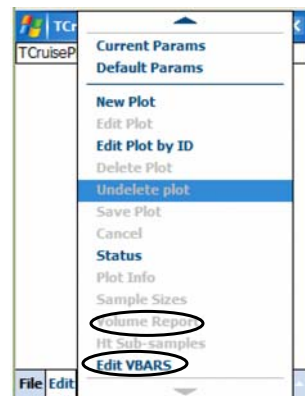
Edit Menu

Although TCruise does not bring the volume calculators you selected in the .tct file to the field, you can get an infield STAND level **Volume Report** based on VBARs. The VBAR values can be edited under the **Edit VBARs** dialogue box.

A screenshot of the 'Edit VBARs' dialog box. It features a table with columns for Sw, Spc group, Prd, SI, VBAR, and Pw. The table contains four rows of data.

Sw	Spc group	Prd	SI	VBAR	Pw
1	Default	Pw			
2		Cs		24.7500	
3		Pl		27.1500	
4		Sl		29.5000	

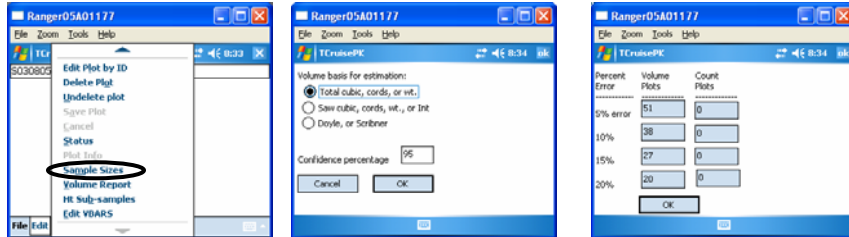
Buttons for Cancel, Help, and OK are located at the bottom of the dialog.



Intro to TCruiseCE

Setting up TCruise on the Handheld

Edit Menu – Sample Size Estimates



1. After you have tallied 12 plots you can access the Sample Size Estimate in the Edit Menu.
2. Select the Volume Basis and type in your desired Confidence Percentage and press OK
3. You will then get sample size estimates for being within 5, 10, 15, and 20 percent of the sample mean at your specified confidence level. The count points field is only used if you are using double point sampling method.



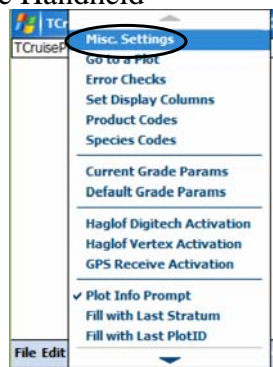
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Intro to TCruiseCE

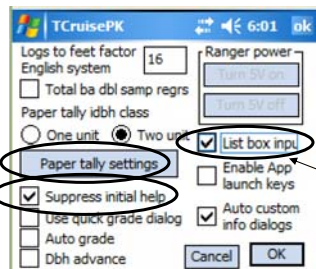
Setting up TCruise on the Handheld

Opts Menu

The Options menu gives you access to the **Misc. Settings** screen. Most of these parameters can be customized to the preference of the user.



The **Paper Tally Settings** is where you set up the DBH and hm Log classes for the List box input and Tally Screen Entry Methods.



The **List box input Box** is where you turn on the Rapid Data Entry menu in TCruiseCE.

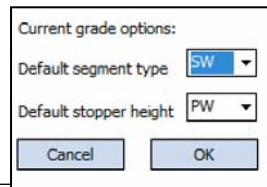
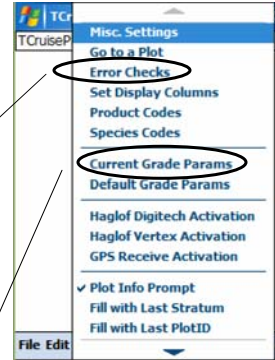
Be sure a check **Suppress initial help**.

Intro to TCruiseCE

Setting up TCruise on the Handheld

Opts Menu

The Options menu also gives you access to the **Error Checks** screen and the **Current Grade Parameters**. Both of these screens can be customized to the preference of the user.



Intro to TCruiseCE

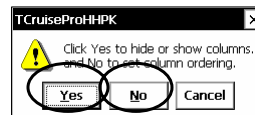
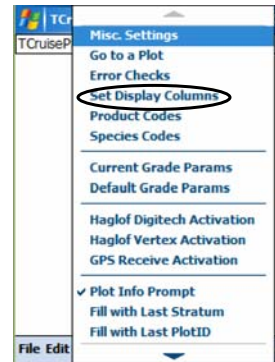
Setting up TCruise on the Handheld

Opts Menu

The Options menu also allows you to change the columns that you see and the order of those columns. Select **Set Display Columns** do so this.

Note: The Display columns that are set up in the .tct file become the columns in the .tcc file and, therefore, should be set as detailed in the template creation section of the manual to reflect the type of cruise you are doing. If you click **Yes** you can select the correct columns. If you select **No**, you can change the order of the columns.

The Default segment type and Default stopper height of the Grade Parameters can also be set.



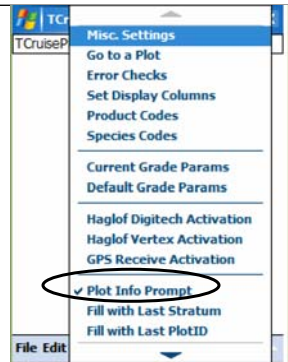
Intro to TCruiseCE

Setting up TCruise on the Handheld

Opts Menu

The Options menu also gives you access to the same **Plot Info Prompt** box that is found in TCruise Office as well. If you check this, then you will be prompted to check and/or enter **Stratum** and **Plot ID** at the beginning of each plot.

If you are using RTI, the Plot id and Lat./Long. of plot center from SoloField CE will automatically be entered into these fields.



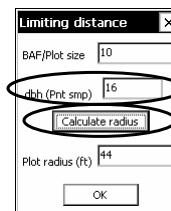
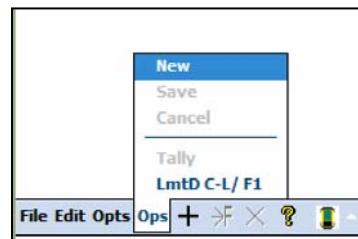
Intro to TCruiseCE

Setting up TCruise on the Handheld

Ops Menu

The Operations menu gives you basic choices like New plot, Save, and Cancel. This menu also gives you access to the **Tally** function of TCruiseCE and the **Limiting Distance** calculator if you are using a Point template and a prism.

The Tally function will be discussed later in this section of the manual. The Limiting Distance calculator works by entering the **dbh** of the tree in question. Your BAF should be auto-recognized from the .tcc file. Once you click **Calculate radius**, TCruise shows you the maximum distance from plot center that is that size tree is included.



Collecting Field Data

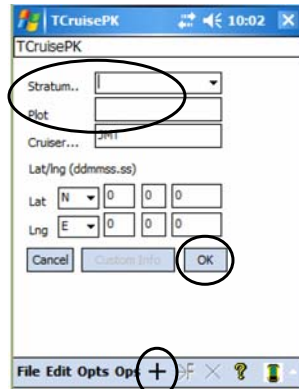
Getting Started

Now that we have our codes loaded and TCruiseCE set up, we can begin cruising timber. Select the + (**New Plot**) button on the toolbar to create a new plot.

If you selected the Plot Info prompt on create earlier, you will see the Plot Info screen. Here you can select the **Stratum** and **Plot ID**.

If you are using RTI as explained in Section VIII, the Plot ID and Lat Lng will automatically be filled out for you.

Lastly, select **OK**.



Collecting Field Data

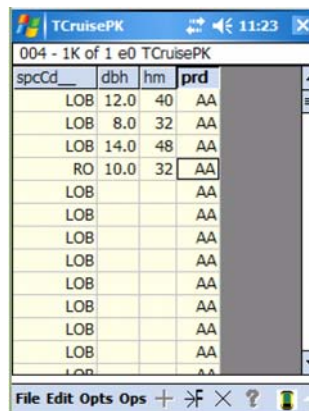
Getting Started

Three Data Entry Methods in TCruiseCE

1. Spreadsheet Data Entry – This is the method at right where you simply use your stylus and/or your keyboard to enter data. This is the preferred method for the Ranger.

2. List Box Input – This is a rapid data entry method which allows you to pick predetermined values off of lists. It is the preferred method for the Recon.

3. Tally Card Data Entry – This method provides a dbh by log lenth Tally card for every species and product in your list. It works very well for uniform stands like Pine plantations.



Collecting Field Data

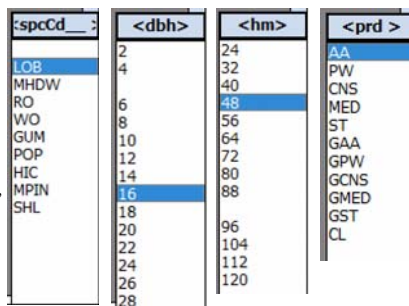
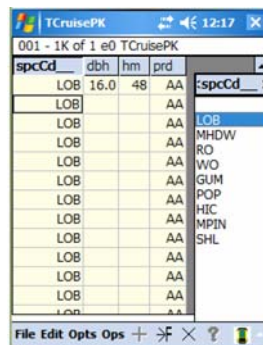
Getting Started

List box input Method

If you selected the List box input menu under Opts > Misc. Settings, then you will see a list automatically pop up when you start entering data. The list represents the data entries for that column. When you touch an entry in one column, the next list pops up and so on.

Note:

1. You will want to turn the No. column off if you plan on using this method of data entry.
2. The actual range of data in the dbh and hm columns can be set in the Opts > Misc. Settings > Paper Tally Settings
3. You can use the <> arrows at the top of each column to go to the previous or next column.
4. If you select the enter button on the handheld, it temporarily cancels the Rapid Data Entry menu allowing you to edit or save the plot.



Collecting Field Data

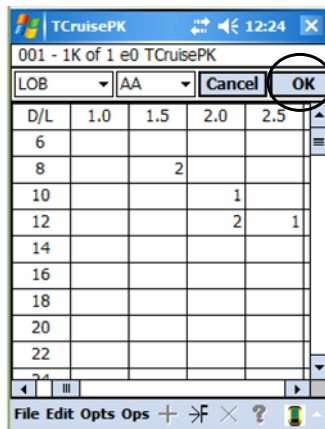
Getting Started

Tally Card Method

If you select Opts > Tally from the spreadsheet data entry screen, a Tally Card will appear like the one here. A quick stylus tap in the upper part of each cell increases the number in that cell. A quick tap in the Lower part of each cell decreases the number in that cell.

Note:

1. You will want to turn the No. column on if you plan on using this method of data entry.
2. The actual range of data in the dbh and hm columns can be set in the Edit > Misc. Settings > Paper Tally Settings
3. Don't forget that you can change the Species and Products as you enter this data.



Click **OK** when you are through and the spreadsheet will automatically be filled out for you.

Collecting Field Data

“Normal” Form Class Cruises - Grading

As mentioned in the Template Design section, if we want to GRADE or MULTI-SORT a 24” Pine tree, we will go to the GAA, or Grade Auto-Assign box under Product. Please note that we do not enter an **hm** if we go to GAA, because we will enter the hm in log segments in the grading screen.

In the grading screen, we can enter log segments and Grades or Sort, depending upon how we set up the template.

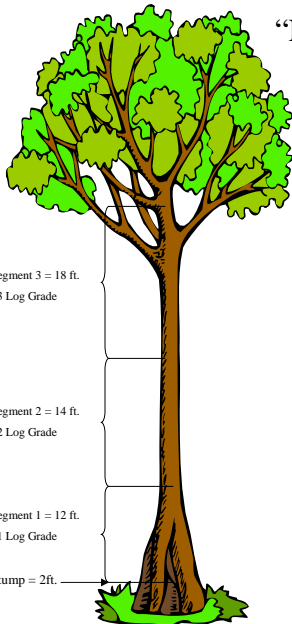
With Form Class cruises, the Stopper Top should be set to SW (saw wood), so be sure and enter all of the log segments that you normally would account for if you were not grading.

File	Edit	Opts	Ops	+	-	F	X	?	X
1K of 1 e0 TCruisePK									
spcCd	dbh	hm	trn	AA					
PIN	12.0	32		PW					
RO	14.0	40		CNS					
PIN	8.0	24		MED					
PIN	20.0	56		ST					
PIN	24.0			GAA					
PIN				AA					
PIN				AA					
PIN				AA					
PIN				AA					

Seg length	Grade:	%Def	
Stump			OK
Segment 1	16 LG_1		Cancel
Segment 2	4 CULL		Stopper
Segment 3	32 LG_2		PW
Segment 4	SW		Broken
Segment 5	SW		Top dia.
Segment 6	SW		
Segment 7	SW		Delete

Collecting Field Data

“Normal” Form Class Cruises - Grading



Here is another example where three log segments, 12’, 14’ and 18’ in length were graded. Also note that the trunk was jump-buttet to 2’.

Seg length (feet) - Do not use	Grade:	%Def	Cancel
Stump	2.0		OK
Segment 1	12 LG_1		Stopper
Segment 2	14 LG_2		PW
Segment 3	18 LG_3		Broken
Segment 4	SW		Top dia.
Segment 5	SW		Delete
Segment 6	SW		exit
Segment 7	SW		
PIN	1		

Collecting Field Data

“Normal” Profile Function Cruises – hs

In this example, the 5th tree entered has an hm and an hs. In this case the hs represents an atypical tree (like a fork) where the sawtimber will not follow the normal profile. The Sawtimber volume stops at 48’ irregardless of what the Merch. Specs. Sawlog top diameter is set to. Basically, hs gives you a way to override where TCruise will stop calculating sawwood and start calculating topwood, if the correct boxes are checked.

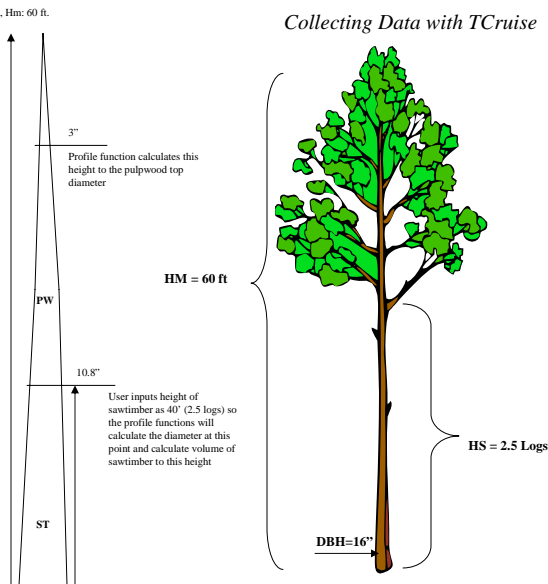
File	Edit	Opts	Ops	+	F	X	?	X
3K of 3 e0 Training.tce								
spcCd	dbh	hm	hs	hp	tm	pr		
PIN	12.0	48				AA		
RO	14.0	56				AA		
PIN	8.0	40				AA		
PIN	20.0	74				PW		
PIN	24.0	80	48			AA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		

Collecting Data with TCruise

Input screen if Hm and Hs are used:

spcCd	dbh	hm	hs	hp	tm	pr
LOG	16.0	60	40			
LOG						
LOG						
LOG						
LOG						
LOG						
LOG						

TCruise, in this scenario will estimate the volume of sawtimber in the



Collecting Field Data

“Normal” Profile Function Cruises –hp

In this example, the **6th tree** has an an hp, and a tm. In this case, the **hp** represents an atypical tree where the topwood will not follow the normal profile. The topwood of that tree will not make a 3” top, for instance, and so hp allows you to tell TCruise to create the profile with the Pulpwood top stopping at a **Merch. Top (tm)** of 5”. No topwood will be calculated above 5”. **Never enter an hm if you use hp. Always enter a tm with hp. In this example you could have entered hm = 50 and tm = 5 and gotten the same answer.**

Note about hp. Most people turn the hp column off. Hp does give you a way to more accurately describe a total stem in that you can enter a total height (hm), a sawtimber height (hs), and a pulpwood height (hp). However, if you are going to enter hp to tell TCruise to stop calculating topwood at a given height instead of the stated Pulpwood top end diameter, you might as well just make merch height (hm) be that same given height and then enter a merch top diameter (tm). Then TCruise will calculate the profile using dbh, hm, and tm and topwood will go from the top of the last log up to the tm diameter.

File	Edit	Opts	Ops	+	F	X	?	X
3K of 3 e0 Training.tce								
spcCd	dbh	hm	hs	hp	tm	wd		
PIN	12.0	48				AA		
RO	14.0	56				AA		
PIN	8.0	40				AA		
PIN	20.0	74				PW		
PIN	24.0	80	48			AA		
PIN	18.0			50	5	AA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		



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Collecting Data with TCruise

Input screen if Hp and Tm are used:

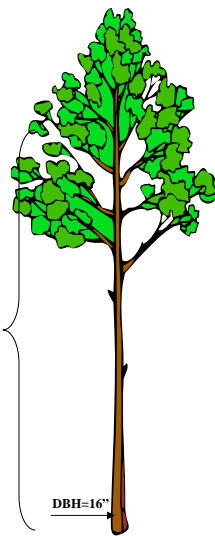
spcCd	dbh	hm	hs	hp	tm	pr
LOB	16.0			50	5	
LOB						
LOB						
LOB						
LOB						
LOB						

You call this height, Hp: 50'

TM = 5"

User inputs this height to the measurable top (hp) and inputs the diameter at that height

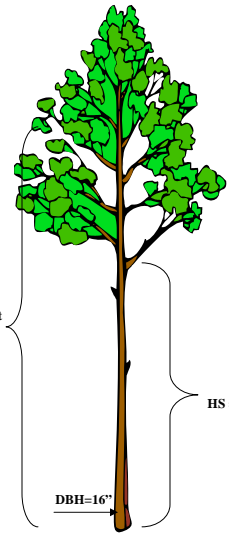
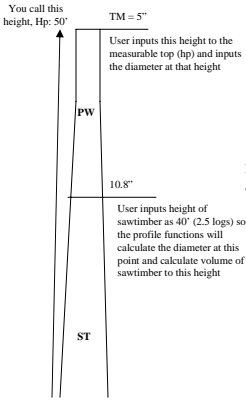
If there is no input in Hs, the profile function calculates this height to the sawtimber top diameter and estimates sawtimber volume to this point



Collecting Data with TCruise

Input screen if Hp, Tm and Hs are used:

spcCd	dbh	hm	hs	hp	tm	pd
LOB	16.0		40	50	5	
LOB						
LOB						
LOB						
LOB						
LOB						
LOB						



Collecting Field Data

"Normal" Profile Function Cruises - tm

We have already seen how tm can be used in conjunction with hp, but it is important to note that tm can also be used with hm or hm + hs.

In this example, the 7th tree has an hm and a tm. The **tm** here indicates that there is probably a broken top at 48' and the diameter at that point is ~12". The profile and volume will be calculated accordingly, with no topwood being calculated since the Sawlog Top diameter was set to 12" in the Merch. Specs.

spcCd	dbh	hm	hs	hp	tm	pd
PIN	12.0	48				AA
RO	14.0	56				AA
PIN	8.0	40				AA
PIN	20.0	74				PW
PIN	24.0	80	48			AA
PIN	18.0			50	5	AA
CB	20.0	48			12	AA
PIN						AA
PIN						AA
DMU						AA

In this example, the 8th tree has an hm, an hs, and a tm. The **tm** here indicates that the tree probably has a broken top at 60' and the diameter at that point is ~6". The sawtimber volume was also atypical and only went to 40'. Topwood will be calculated on this stem from 40' to 60'.

spcCd	dbh	hm	hs	hp	tm	pd
PIN	12.0	48				AA
RO	14.0	56				AA
PIN	8.0	40				AA
PIN	20.0	74				PW
PIN	24.0	80	48			AA
PIN	18.0			50	5	AA
CB	20.0	48			12	AA
WO	20.0	60	40		6	AA
PIN						AA
DMU						AA

It is important to note that tm will always be associated with the tallest height reported.

Collecting Field Data

“Normal” Profile Function Cruises - Grading

As mentioned in the Template Design section, if we want to GRADE or MULTI-SORT a 24” Pine tree, we will go to the GAA, or Grade Auto-Assign box under Product. Please note that we do not enter an **hm** if we go to GAA, because we will enter the **hm** in log segments in the grading screen.

In the grading screen, we can enter log segments and Grades or Sort, depending upon how we set up the template.

With Profile Function cruises, the Stopper Top is extremely important. In this example, the last log segment entered is **PW** and Stopper is set to **PW**. Because the Pulpwood top for the Sawtimber Product was set to 3”, in the Merch Specs., TCruise knows that the tree is 3” at 64’.

File	Edit	Opts	Ops	+	3F	X	?	X
2K of 3 e0 Training.tce								
spcCd_	dbh	hm	hs	hp	tm	AA		
PIN	16.0	48				PW		
RO	14.0	32				CNS		
PIN	6.0	24				MED		
PIN	8.0	24				ST		
PIN	20.0					GAA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		
PIN						AA		

Seg length		Grade:		Stopper	
Stump			%Def		
Segment 1	16	LG_1			OK
Segment 2	4	CULL			Cancel
Segment 3	32	LG_2			Stopper
Segment 4	12	SW			PW
Segment 5		SW			Broken Top dia.
Segment 6		SW			
Segment 7		SW			Delete

Collecting Field Data

“Normal” Profile Function Cruises - Grading

The three other choices for Stopper and their explanation are as follows:

SW – Stopper is Sawwood and so TCruise knows from the Merch. Specs. that this tree is 12” at 42’. No topwood will be calculated above this Sawwood.

HM – Stopper is merch height or Height to Record Top. Notice that the last segment is called **TIP**, indicating that it goes to 0”. If **hm** was the same as the Pulpwood top (i.e. 3”), then you could have **PW** where **TIP** is.

BR – Stopper is a broken top pulpwood segment. Note also that the Broken Top diameter is 5” at 54’.

Seg length		Grade:		Stopper	
Stump			%Def		
Segment 1	16	LG_1			OK
Segment 2	4	CULL			Cancel
Segment 3	32	LG_2			Stopper
Segment 4	20	TIP			SW
Segment 5		SW			Broken Top dia.
Segment 6		SW			
Segment 7		SW			Delete

Seg length		Grade:		Stopper	
Segment 1	16	LG_1			OK
Segment 2	4	CULL			Cancel
Segment 3	32	LG_2			Stopper
Segment 4	12	PW			BR
Segment 5		SW			Broken Top dia.
Segment 6		SW			
Segment 7		SW			Delete

Collecting Field Data

Profile Function and Form Class Cruises

The data for a Profile Function and Form Class Cruise is entered the same way as a “Normal” Form Class Cruise except that hm for Pulpwood is Height to Record Top instead of Height to Pulpwood Top. In most cases this number is the same.

Collecting Field Data

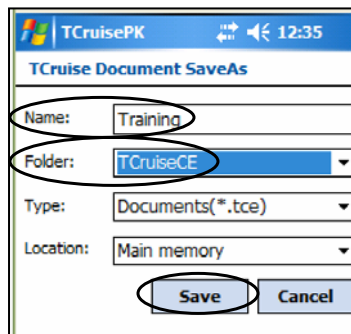
All Cruises – Saving Plot Data

Once you have entered all trees on a plot, click the **->F** button (Plot Finished) to save that plot.

The first time you do this, you will be prompted to save the cruise as a .tce file. In this case we named the file **Training**. Do not add the .tce extension because TCruiseCE will automatically add it.

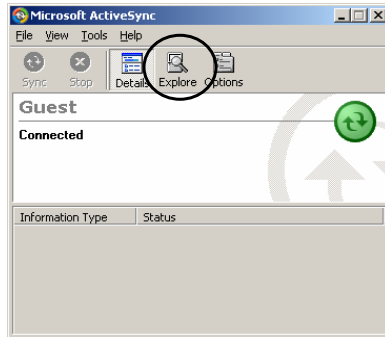
The Default Folder for TCruiseCE will always be Built-in Storage\My Documents (Pocket PC) or just My Documents (Windows Mobile). It is best to go ahead and select the **TCruiseCE** folder under Folder so that you know where your cruise will be stored.

Select **Save** after you name the cruise and put it in the TCruiseCE folder.



Each additional plot in this cruise will be saved in the same training.tce file when you click the Plot Finished button, **->F**.

Transferring Cruise Data to the PC

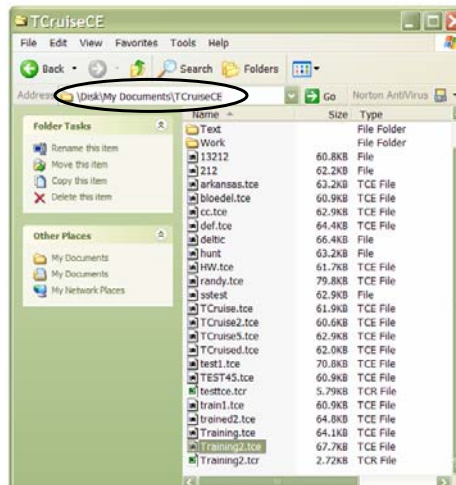


To transfer the .tce back to your computer, simply Sync your handheld to your computer as detailed in the Template Design section. When you get a Green light, you can go the Windows Explorer as detailed before, or you can take a shortcut and click the **Explore** button on the ActiveSync dialogue box.

Transferring Cruise Data to the PC

You will then be directed to the Mobile Device Folder in Windows Explorer.

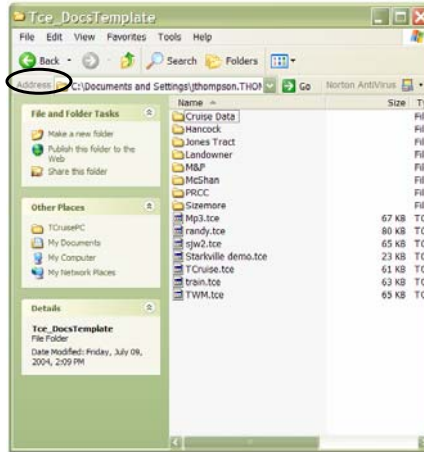
Navigate to the **TCruiseCE** folder where you stored your data and cut or copy the correct .tce file.



Transferring Cruise Data to the PC

Next, drop down the **Address Bar** and navigate to the **C:\My Documents \TCruisePC\ Tce_DocsTemplate** folder on your PC and then paste the .tce file copied from the handheld into that new folder.

Sometimes you may want to create a new folder for each cruise under the Tce_DocsTemplate folder. To do this select **File > New > Folder** and then type in the name of that cruise and then paste the .tce files into that folder.



Calculating Volumes for a “Normal” Cruise

Step #1 - Open the Template File

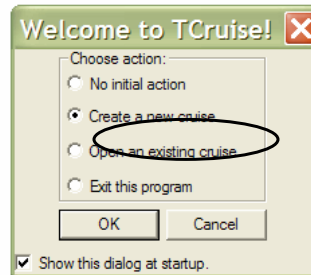
We are now ready to calculate volumes using TCruise. Open TCruise office by double clicking the icon on the desktop.

The following dialogue box will appear. We need to select the 2nd option, **Create a new cruise**.

If we select this, TCruise will automatically send us to the .tct folder so that we can select the template that matches our cruise.

If the program is already open for some reason, you can also select the **Load .tct** shortcut button from the Workup Toolbar.

Note that TCruise 5.0 now has a special Workup toolbar that corresponds to the steps outlined in this section.



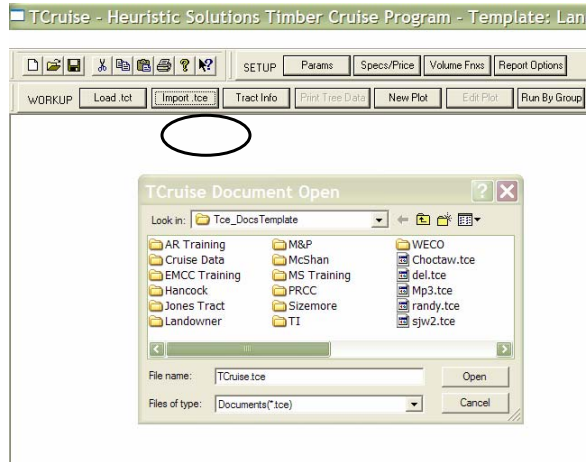
Calculating Volumes for a “Normal” Cruise

Step #2 – Import the .tce Field Data File

Next you need to import the field data file that you just transferred to your computer.

Select the **Import .tce** shortcut button from the Workup Toolbar.

TCruise will automatically take you to the .tce folder where you can open the correct cruise subfolder, if necessary, and then select the correct .tce file.



Calculating Volumes for a “Normal” Cruise

Step #3 – Inputting Tract Acres

Once you open the .tce file, TCruise will automatically prompt you to input the correct Tract acres in the Tract Information screen.



To open the Tract dialogue screen, the **Tract Info** shortcut button on the Workup Toolbar and input the correct Land Area.

Calculating Volumes for a “Normal” Cruise

Step #4 – Checking the Plot List

Before you run your cruise, it is sometimes helpful to view all of the tree data that was entered. TCruise allows you to do this by selecting the **Print Tree Data** shortcut button on the Workup Toolbar.

TCruise will then prompt you to save your template and field data in a .tcd file, or TCruise Document.

Once you name the .tcd file and save it, the Plot list will appear. You cannot edit the plot data here, but you can print it or export it to Excel.

Single Plot Cruise Data Entry Form, Page 1 of 50.

	Plot	Plt	Tree	SpC	Dbh	Hm	Hs	Im	PN	Tree Product
1	1	1	1 LB		16.4	56.0			0	AutoAssign
2	1	1	2 LB		11.0	58.0			0	AutoAssign
3	1	1	3 LB		15.8	60.0			0	AutoAssign
4	1	1	4 LB		11.9	48.0			0	AutoAssign
5	1	1	5 LB		11.3	34.0			0	AutoAssign
6	1	1	6 LB		19.0	59.0			0	AutoAssign
7	1	1	7 LB		17.2	54.0			0	AutoAssign
8	1	1	8 LB		17.6	53.0			0	AutoAssign
9	1	1	9 LB		16.3	60.0			0	AutoAssign
10	1	1	10 HD		8.0	20.0			0	AutoAssign
11	2	1	1 LB		20.1	59.0			0	AutoAssign
12	2	1	2 LB		14.8	65.0			0	AutoAssign
13	2	1	3 LB		11.9	52.0			0	AutoAssign
14	2	1	4 LB		24.2	59.0			0	AutoAssign
15	2	1	5 LB		21.6	60.0			0	AutoAssign
16	2	1	6 LB		25.1	62.0			0	AutoAssign
17	2	1	7 LB		19.3	62.0			0	AutoAssign
18	2	1	8 LB		17.3	62.0			0	AutoAssign
19	2	1	9 LB		12.4	62.0			0	AutoAssign
20	2	1	10 LB		17.0	66.0			0	AutoAssign

Buttons: Quit, Print data, Save to file

Calculating Volumes for a “Normal” Cruise

Step #5 – Editing Plot Data

Sometimes it is also useful to edit Plot data before you run your cruise. To do this select the **Edit Plot** shortcut button from the Workup Toolbar and then choose which plot number you want to edit. The data that was entered in the field for that plot will then show up and you can edit it and resave it by clicking **OK**.

Multiple Plot Cruise Data Entry Form, Plot 1, Page 1 of 50.

	SpC	Dbh	Hm	Im	PN	Tree Product
1	LB	16.4	56.0		0	AutoAssign
2	LB	11.0	58.0		0	AutoAssign
3	LB	15.8	60.0		0	AutoAssign
4	LB	11.9	48.0		0	AutoAssign
5	LB	11.3	34.0		0	AutoAssign
6	LB	19.0	59.0		0	AutoAssign
7	LB	17.2	54.0		0	AutoAssign
8	LB	17.6	53.0		0	AutoAssign
9	LB	16.3	60.0		0	AutoAssign
10	HD	8.0	20.0		0	AutoAssign
11	LB				0	AutoAssign
12	LB				0	AutoAssign
13	LB				0	AutoAssign
14	LB				0	AutoAssign
15	LB				0	AutoAssign
16	LB				0	AutoAssign
17	LB				0	AutoAssign
18	LB				0	AutoAssign
19	LB				0	AutoAssign
20	LB				0	AutoAssign

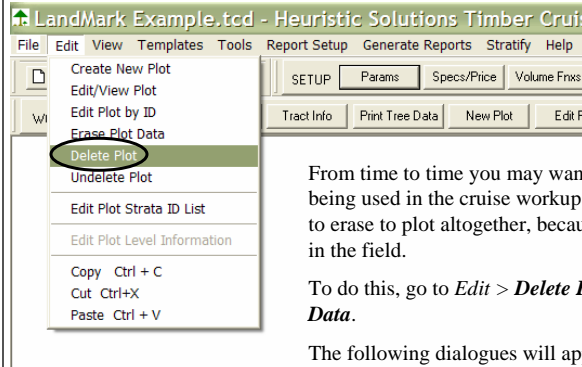
Buttons: Cancel, Print page, Display columns, Plot info (ID/lat/long/etc.), Prev page, Next page, Edit one, Edit next, New plot

Plot type: Plot
Plot BAF: 10
Pw/ Plot type: Main
Pw/ point BAF: 10
Repro. plot sz: 0.0100
Subsearch puz: 0.0000
7/22/2004
10:20:39 AM

OK

Calculating Volumes for a “Normal” Cruise


Step #6 – Deleting or Erasing Plots



From time to time you may want to Delete a plot from being used in the cruise workup, or you may simply want to erase to plot altogether, because you made a mistake in the field.

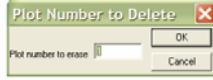
To do this, go to *Edit > Delete Plot* or *Edit > Erase Plot Data*.

The following dialogues will appear and you can select the plot to delete or erase.



Plot number to delete:

OK Cancel

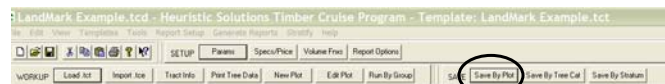


Plot number to erase:

OK Cancel

Calculating Volumes for a “Normal” Cruise

Step #7 – Save Plots from a Listing



Sometimes it is helpful to select certain plots from a list of all plots and subset them into their own cruise. To do this select the **Save By Plot** shortcut button on the Save Toolbar. When you select this the following subset dialogue appears and allows you to select some or all of the plots and save them in their own cruise.

Select a subset of plots to save to a tcd document

Plot No.	Plot ID	Stratum ID	Plot status
1	101	1	Kept
2	102	1	Kept
3	103	2	Kept
4	104	3	Kept
5	105	3	Kept
6	107	3	Kept
7	100	3	Kept
8	109	2	Kept
9	110	2	Kept
10	111	3	Kept
11	112	3	Kept
12	113	1	Kept
13	114	1	Kept
14	115	2	Kept
15	116	2	Kept
16	117	2	Kept
17	118	2	Kept
18	119	3	Kept
19	120	1	Kept
20	121	3	Kept
21	122	1	Kept

Select All
Unselect All
Select Deleted Plots
Select Kept Plots
Cancel
OK

Calculating Volumes for a “Normal” Cruise

Step #8 – Running the Cruise

When you have the data edited and the plots selected that you want to include in the cruise, TCruise gives you several different ways to RUN your cruise.

1. **RUN BY GROUP** – the most popular “RUN” – simply runs all the data by species group and product. Select the **Run By Group** shortcut button on the Workup Toolbar.

To access the other cruise workup options, select Generate Reports.

2. **GROW BY GROUPS** – allows you to select a Growth Projection and Increment Core Measurement Interval to see what your cruise might look like in the future.

3. **RUN COMBINED** – allows you to combine all species groups and species into 1 group and get a stand level volume estimate across species, or you can select certain species groups or certain species and run only those that interest you.

4. **GROW COMBINED** – similar to Run Combined except you are predicting future volumes.

Calculating Volumes for a “Normal” Cruise

Step #9 – The Generic Cruise Report

Table 2. Per unit land area volume and reproduction executive summary.
Tract.....:
Species group: Loblolly

Row	Cruise Variable	Pulpwood	Chipnsaw	Medium	Sawtimber	Total
1	NumberofTrees.:	20.0	0.0	0.0	10.0	30.0
2	BasalArea.....:	23.8	0.0	0.0	21.8	45.6
3	Mean.tree.dbh.:	14.8	0.0	0.0	20.0	16.7
6	PulpWood(Tons):	17.6	0.0	0.0	3.1	20.7
10	SawWood(Tons):	0.0	0.0	0.0	25.8	25.8
12	International.:	0.0	0.0	0.0	4489.7	4489.7
13	Doyle.....:	0.0	0.0	0.0	3533.4	3533.4
17	Total(Tons):	17.6	0.0	0.0	28.9	46.5
19	Pulpwood.\$\$\$:	6.4	0.0	0.0	1.1	7.6
20	SolidWood.\$\$\$:	0.0	0.0	0.0	3.5	3.5
21	Total.....\$\$\$:	6.4	0.0	0.0	4.7	11.1

Table 3. Tract volume executive summary.
Tract.....:
Species group: Loblolly

Row	Cruise Variable	Pulpwood	Chipnsaw	Medium	Sawtimber	Total
1	NumberofTrees.:	20	0	0	10	30
2	BasalArea.....:	24	0	0	22	46
5	PulpWood(Tons):	18	0	0	3	21
9	SawWood(Tons):	0	0	0	26	26
11	International.:	0	0	0	4489	4489
12	Doyle.....:	0	0	0	3533	3533
16	Total(Tons):	18	0	0	29	46
18	Pulpwood.\$\$\$:	6	0	0	1	8
19	Solidwood.\$\$\$:	0	0	0	4	4
20	Total.....\$\$\$:	6	0	0	5	11

Once you select RUN by GROUPS (or something else), TCruise will calculate your volumes, stats, stumpage, etc. based on what you selected in the Report Options dialogue.

The Executive Summary gives a concise report of the **Volume Variables** you selected by Species Group on a per acre and total tract basis.

If you selected Sample Size Estimates, Raw Stats, and Merch Specs. then that will be reported as well.

NOTE: If you had errors and do not see your report, go to View > View Output.

NOTE: You must use the Page Up and Page Down keys to toggle between report pages.

Calculating Volumes for a “Normal” Cruise– The Generic Cruise Report

Table 26. Custom executive summary volume and value report.
Tract.....1

TCruise Custom Report

Volume-Value Description	Volume		
	Total	tract	Unit area Units
Red Oak	0	0	0.0 Cords
White Oak	0	0	0.0 Cords
Sweetgum	0	0	0.0 Cords
Poplar	0	0	0.0 Cords
Hickory	0	0	0.0 Cords
Misc. Hardwood	0	0	0.0 Cords
Misc. Pine	0	0	0.0 Cords
Total Fine Cords	6	6	6.4 Cords
Total Hardwood Cords	0	0	0.0 Cords

Loblolly International	4489	4489.7	Inch/4
Shortleaf	0	0	0.0 Inch/4
Red Oak	849	849.7	Inch/4
White Oak	0	0	0.0 Inch/4
Sweetgum	1485	1485.0	Inch/4
Poplar	0	0	0.0 Inch/4
Hickory	2964	2963.8	Inch/4
Misc. Hardwood	0	0	0.0 Inch/4
Misc. Pine	0	0	0.0 Inch/4
Total Fine Internat	4489	4489.7	Inch/4
Total Hardwood Internat	5317	5317.3	Inch/4

Loblolly Doyle	3533	3533.4	Doyle
Shortleaf	0	0	0.0 Doyle
Red Oak	447	447.0	Doyle
White Oak	0	0	0.0 Doyle
Sweetgum	928	927.6	Doyle
Poplar	0	0	0.0 Doyle
Hickory	2221	2221.1	Doyle

If you created a Custom Report in the template, it will show up at the end of the regular reports.

NOTE: Somewhere during these steps you will be prompted to save what you are doing as a .tcd file (TCruise document). **Don't forget that the .tcd file contains the template and the plot data.** Consequently, if you ever want to rerun a cruise at a later time, simply Open an Existing Cruise or .tcd file and click Run by Groups.



Technical Support: (850) 385-3667

Calculating Volumes for a “Normal” Cruise– Step #10 - The LandMark TCruise Report

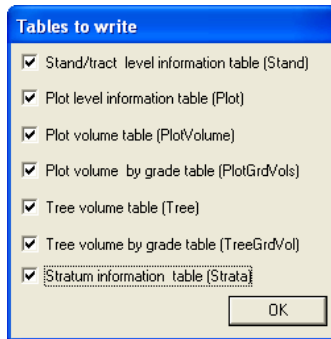
Another reporting option that LandMark Systems now offers is the LandMark TCruise reports. For complete instructions on how to download and install these reports, go to http://www.landmarksystems.org/support/downloads_updates.htm#3 and then download the **TCruise Reports Install Guide, TCruise_Reports, and the LandMark Export Module.**

- [TCruise Installation Instructions](#)
- [TCruise Desktop](#)
- [TCruise Field_PocketPC \(for all PocketPC and Windows Mobile devices\)](#)
- [TCruise Field_WinCE \(for handhelds with WindowsCE OS\)](#)

TCruise Custom Reports (requires LandMark Export Module). Optional add-on that gives the user a wider variety of standard reports.

- [TCruise_Reports](#)
- [TCruise_Reports Install Guide](#)
- [LandMark Export Module](#)

Using The LandMark TCruise Reports



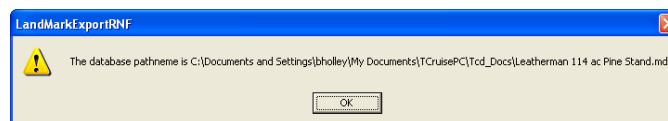
Step #1 – Select Run by Groups

Step#2 – Select the Table to Write

When you correctly register the LandMark Export Module, you will get the screen to the right.

The Tables to write dialog box will appear. Select ALL table options and press TCruise is writing all cruise data to the LandMark Export database files. Depending on the size of your cruise, this process could take a few minutes. Please be patient.

Using The LandMark TCruise Reports



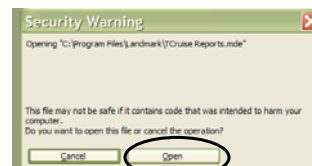
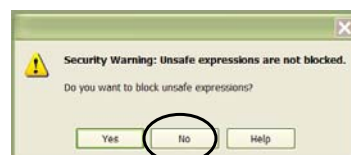
Step #3 – Select OK.

The LandMarkExportRNF.dll creates the database, renames it to match the name of the open .tcd file and places it in the same folder as the .tcd. This is confirmed by the dialog box as shown above.

Step #4 – Select No and Open (if necessary)

After you press OK, the LandMark Systems TCruise Reports will Auto Launch.

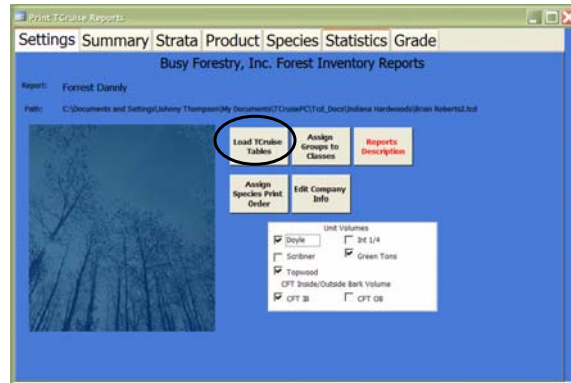
If you see security messages like the ones below, tell the program **Not** to block unsafe expressions and to **Open** the reports.



Using The LandMark TCruise Reports

Step #5 – Select Load TCruise Tables

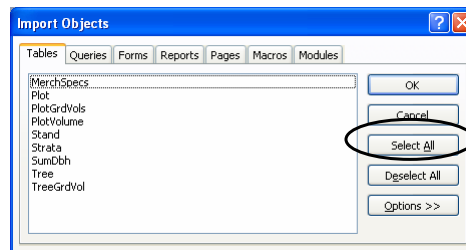
To view the reports of the cruise just processed, select the Load TCruise Tables button. Navigate to the folder that contained your .tcd file and select the corresponding .mdb file. Usually this will be the My Documents\TCruisePC\tcd_Documents folder.



Using The LandMark TCruise Reports

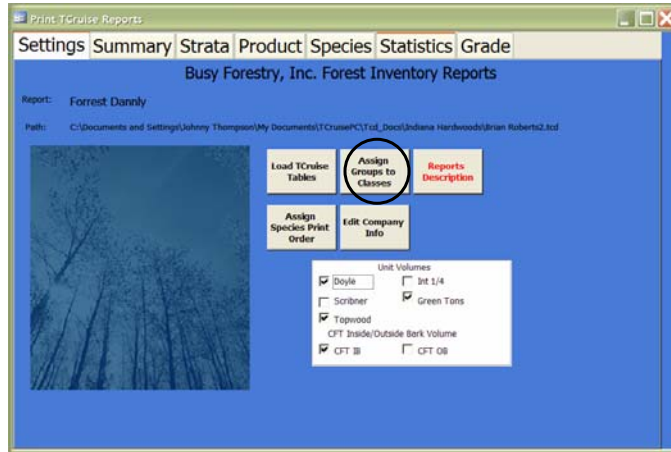
Step #6 – Select Select ALL

You will be prompted to select the tables to import. Press the **Select All Button** and then OK.



Using The LandMark TCruise Reports

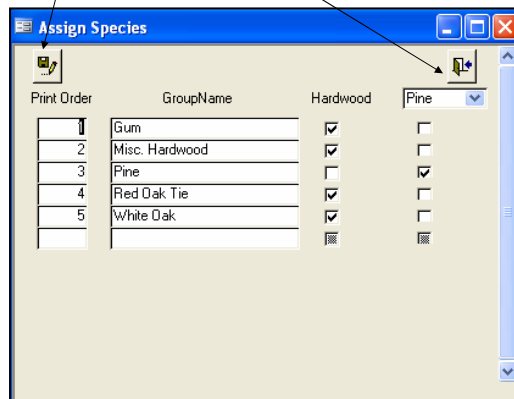
Step #7 – Select Assign Groups to Classes



Using The LandMark TCruise Reports

Step #8 – Select either a Pine or Softwood Class and then Assign the correct Species Groups to the correct classes.

Next, select the Save button and then the Close button.



Using The LandMark TCruise Reports

Step #9 – Preview and print the reports you want.

