



United States Department of Agriculture
US Forest Service
Natural Resource Manager (NRM)



FSVeg Common Stand Exam User Guide

Chapter 3: Installing the Exams Software

Version: 2.12.6
March 2015



TABLE OF CONTENTS

Installing the Exams Software.....	3-3
Step 1: Place ActiveSync on your PC.....	3-3
Step 2: Place the Exams Software on Your PC.....	3-5
Step 3: Execute the ExamsPC Software.....	3-10
Step 4: Set Up the Exams Defaults.....	3-12
Step 5: Move the ExamsCE Software and Defaults from PC to PDR....	3-32
Step 6: Execute the ExamsCE Software.....	3-36
General Operating Notes	3-37
Closing the ExamsPDR Program	3-37
Random Access Memory	3-38
Battery	3-38
Operating the Casio.....	3-39
Operating the Husky Fex 21	3-39
Operating the Juniper	3-39
Operating the Dell Axim	3-40
Operating the Compaq iPAQ	3-40
Opearting the Compaq iPAQ, Dell Axim, Trimble GeoXM and GeoXT ..	3-40
Entering Data into the Portable Data Recorder	3-46
Setting Data.....	3-46
Plot Data	3-51
Tree Data	3-55
Vegetation Composition and Surface Cover Data	3-58
Down Woody Data	3-62
Witness Tree/Navigation	3-63

Before You Head to the Field	3-65
Equipment Check	3-65
Applications/Data Files.....	3-65
Region- and/or Forest-Specific Installation Information.....	3-66

INSTALLING THE EXAMS SOFTWARE

The Exams software runs on either a PC or a Portable Data Recorder (PDR). It operates on Windows 2000 or Windows XP operating systems, and on several makes and models of PDRs.

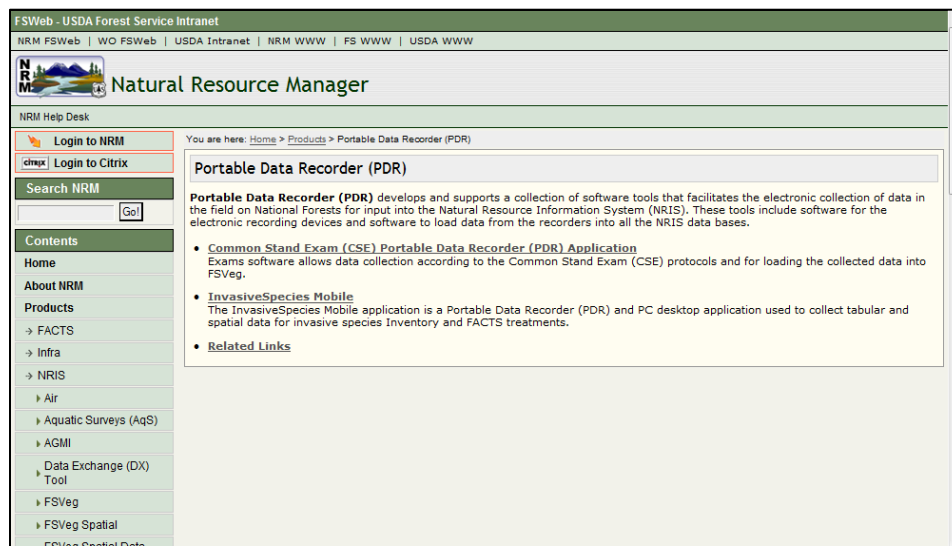
STEP 1: PLACE ACTIVESYNC ON YOUR PC

Complete this step, as detailed in Table below, once on each PC used to transfer data and/or software between a PC and PDR. Periodically, check to ensure the most recent copy of ActiveSync is installed on the PC. To check the version, open ActiveSync and select **Help / About**. Compare the version number with the latest version on the PDR web page. If your version is out of date, follow the steps below to install the latest version.

Step 1.1

Use Microsoft Internet Explorer to access the [Portable Data Recorder website](#), as shown in [Figure 1](#).

Figure 1: NRM PDR webpage

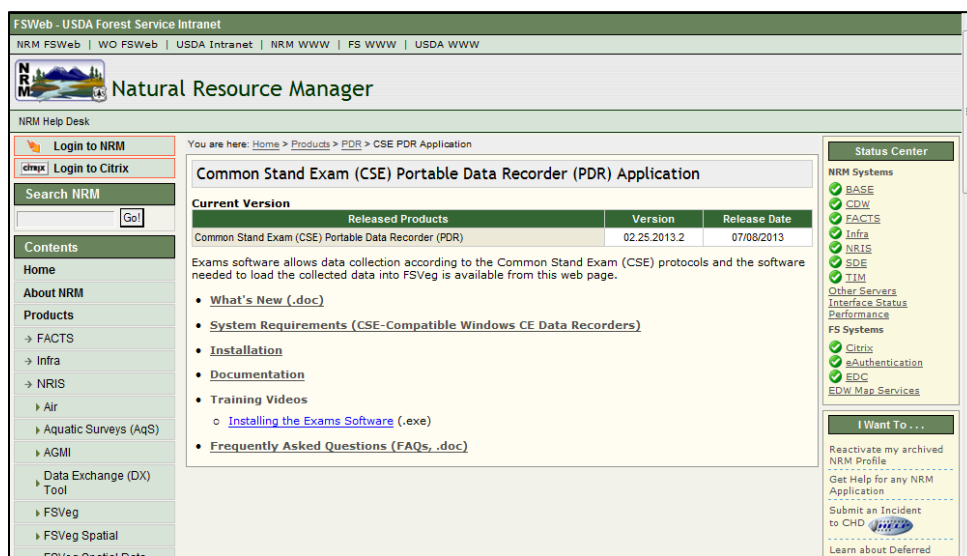


Click on **Common Stand Exam (CSE) Portable Data Recorder (PDR) Software**.

Step 1.2

Click on **Installation**, as shown in [Figure 2](#).

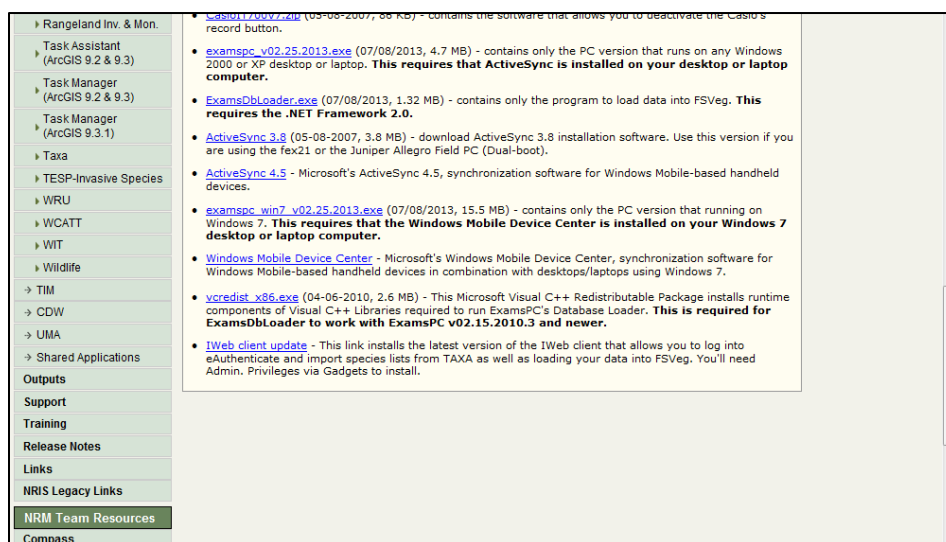
Figure 2: Common Stand Exam PDR Application



Step 1.3

Scroll to the bottom of the page, as shown in [Figure 3](#).

Figure 3: Bottom of CSE/PDR webpage



Step 1.4

Select the link to the most recent version of ActiveSync, noted as **ActiveSync 4.5** in [Figure 3](#) above, and follow the instructions (if you have to install ActiveSync, you will be taken to the Microsoft website).

Step 1.5

Save the program to disk.

Step 1.6

Save the file to Local Disk (C:/).

Step 1.7

Once the program is installed, control is returned to the PDR website.

Step 1.8

Close the PDR website.

Step 1.9

Close the window to the C:/ drive.

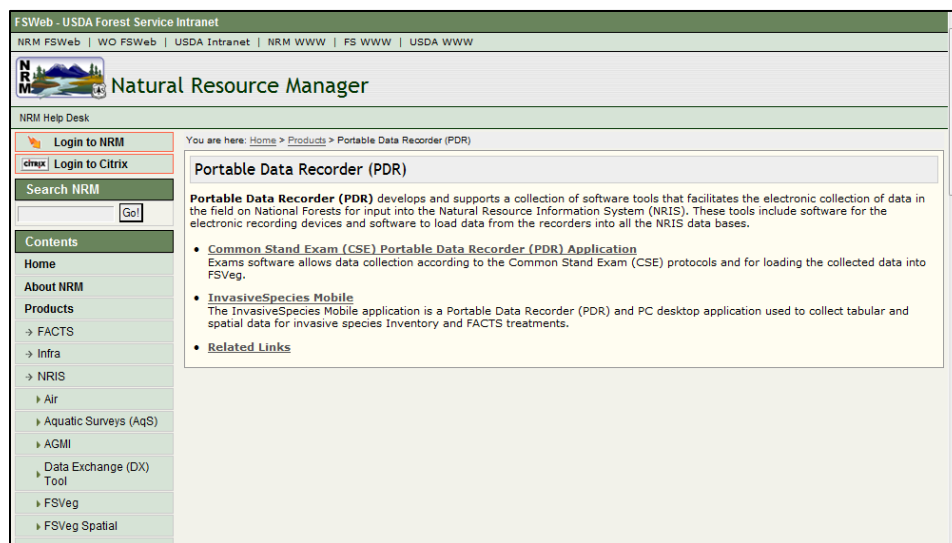
STEP 2: PLACE THE EXAMS SOFTWARE ON YOUR PC

Complete this step once for each type of PDR used, and as updates become available. If you are using multiple makes and models of PRs, you must place each executable in a separate folder.

Step 2.1

Use Microsoft Internet to access the [PDR website](#). Under PDR Applications at the i-Web Data Center, select **Common Stand Exam (CSE) Portable Portable Data Recorder (PDR) Application**, as shown in [Figure 4](#).

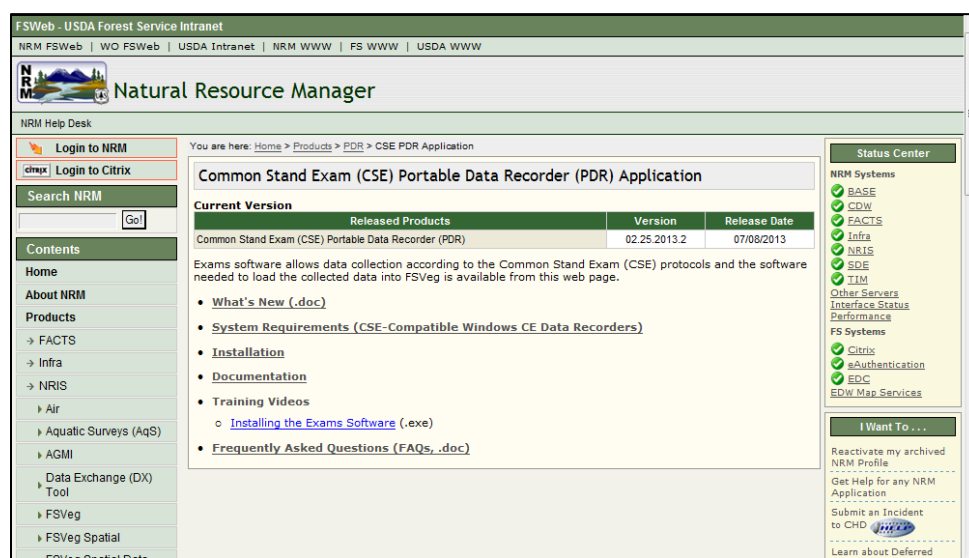
Figure 4: PDF webpage



Step 2.2

Select **Installation**, as shown in [Figure 5](#).

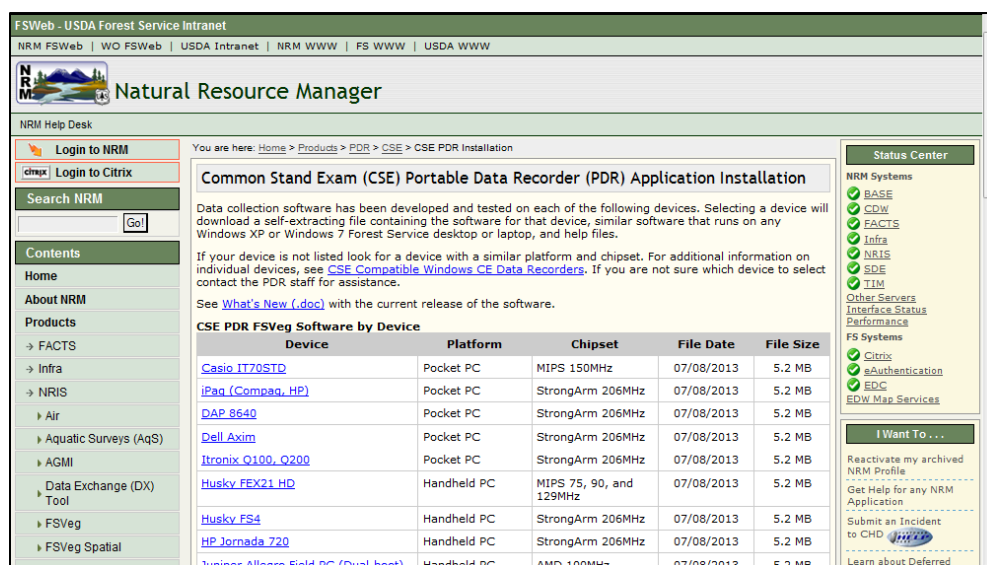
Figure 5: CSE/PDR Application webpage



Step 2.3

Click on the link that matches your PDR device type, see the partial list shown in [Figure 6](#).

Figure 6: CSE/PSR Application Installation Webpage



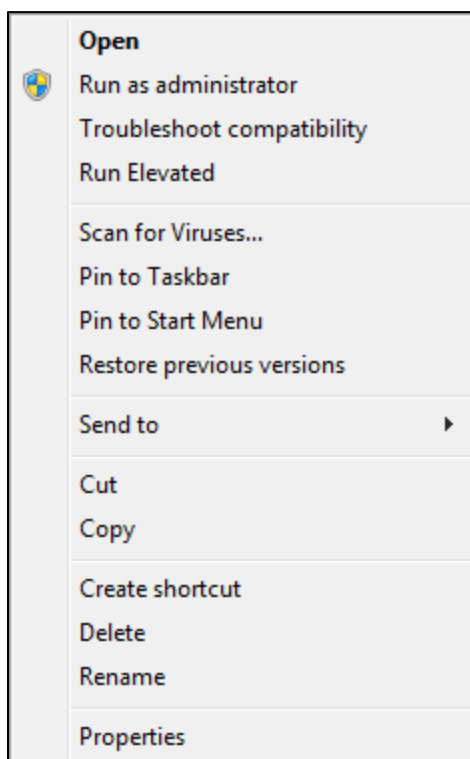
Step 2.4

Click the **Save** button. Save the file to your desktop.

Step 2.5

Right-click on the newly saved file. Select **Run Elevated**, as shown in [Figure 7](#), to continue the installation process.

Figure 7: Run Elevated



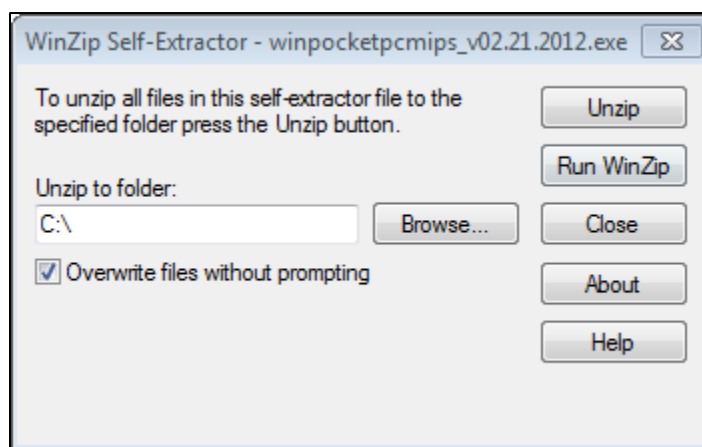
Step 2.6

If prompted to provide a reason for installing this software, enter your business unit in the request form.

Step 2.7

Make sure the **Unzip to Folder** window contains **C:/** and select **Unzip**. Once unzipped, select **OK** then **Close**.

Figure 8: WinZip Self-Extractor window



Step 2.7

Close out of Explorer by selecting the **X** in the upper right corner of the window.

Step 2.8

From the PC desktop, double-click on the **My Computer** icon (you can also access **My Computer** through the **Start** button in the lower left-hand corner of your screen).

Step 2.9

Double-click **Local Disk (C:)**.

Step 2.10

Scroll down and right-click on **winpocketpcxxx_V2.0.exe**, then select **Delete**, then select **Yes**.

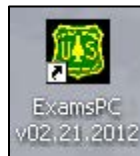
Step 2.11

Close the **Local Disk (C:)** window by selecting the **X** in the upper right corner of the window.

Step 2.12

An **ExamsPC** icon is now located on your PC desktop, as shown in [Figure 9](#).

Figure 9: ExamsPC desktop icon



Step 2.13

Click on **Start / My Computer / Local Disk (C:)**.

Step 2.14

Double-click on the **Exams** folder.

Step 2.15

Double-click on **Setup / WebClient.msi** and follow the instructions.

Step 2.16

Close out of the **My Computer** window by clicking on the **X** in the upper right corner of the window.

Figure 10: PDR Setup, Collect, & Load process

Setup:



Field Data Collection:

Collect Stand Exams:
Setting
Plot
Tree
Veg Comp / Cover
Downed Woody



Load Data into the FSveg Database

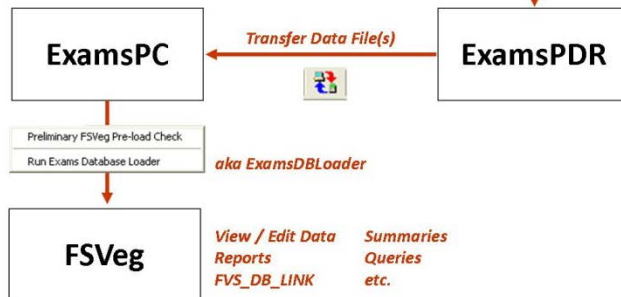
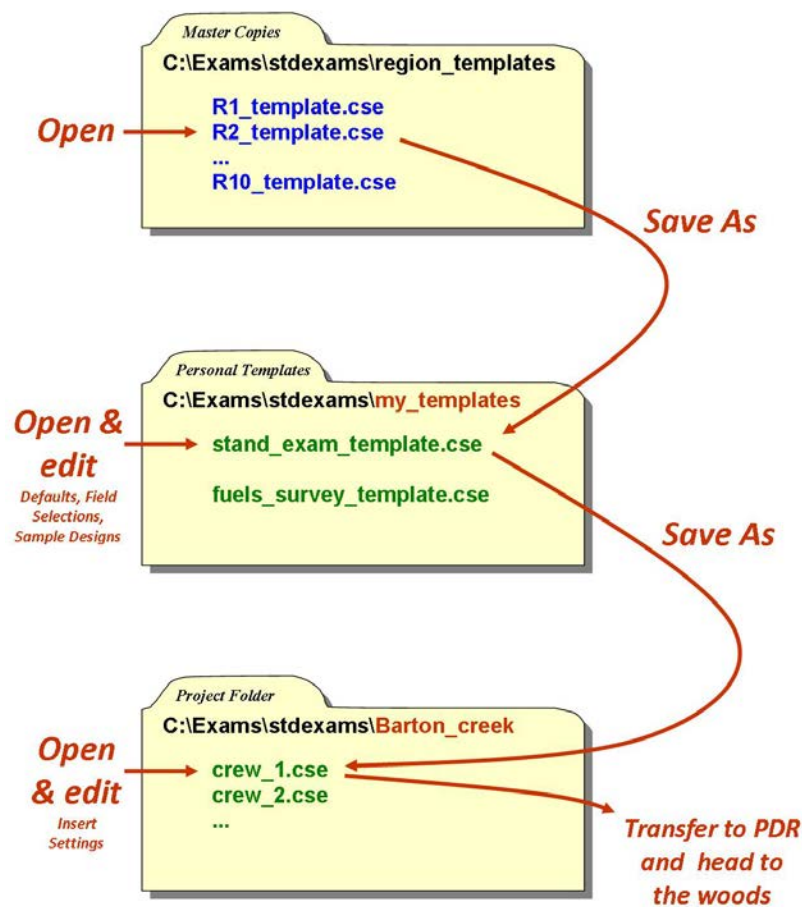


Figure 11: PDR File Management (or how not to corrupt your regional templates)

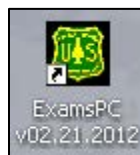


STEP 3: EXECUTE THE EXAMSPC SOFTWARE

Step 3.1

Double-click on the **ExamsPC** icon on your desktop, as shown in [Figure 12](#).

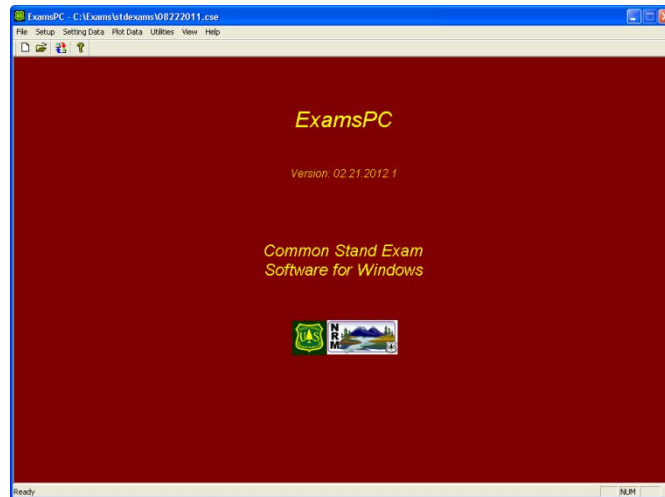
Figure 12: Exams PC desktop icon



Step 3.2

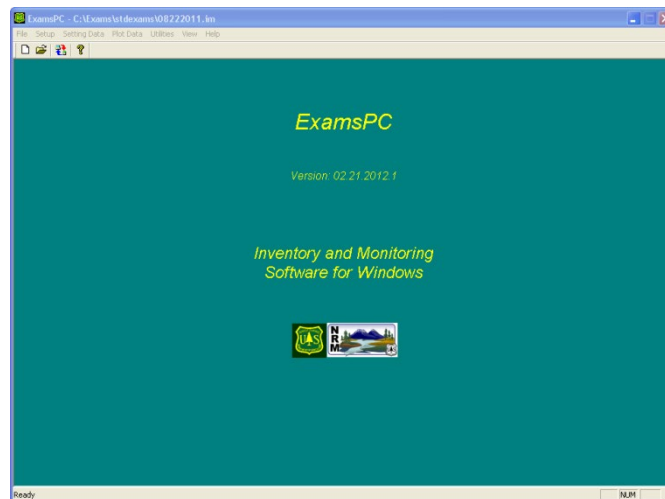
The software will open to the option that you were in when you last exited the application. If you were last using the **Common Stand Exam** option, you will see the screen shown in [Figure 13](#).

Figure 13: Exams PC Interface



If you were last using the **Inventory and Monitoring** options, you will see the screen shown in [Figure 14](#).

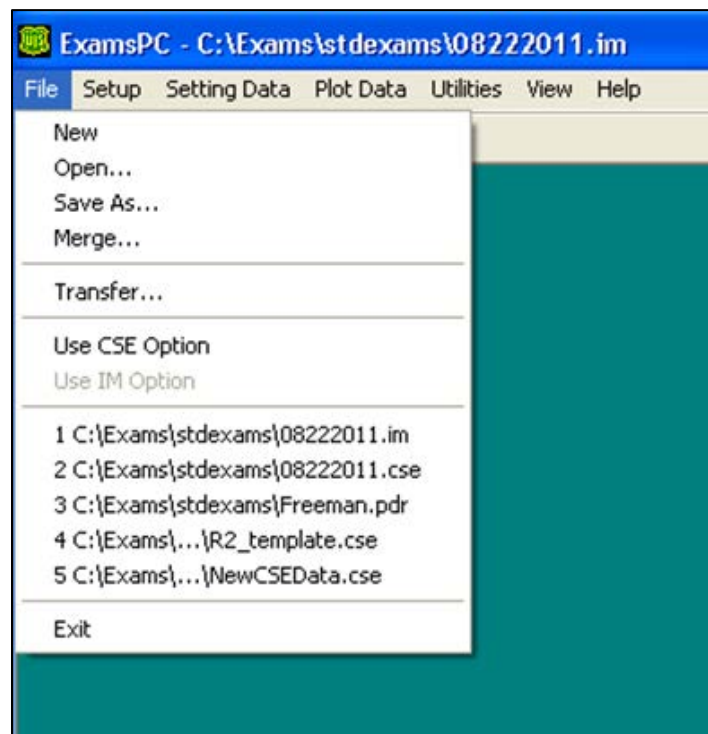
Figure 14: Inventory and Monitoring interface



Menu items are identical within both options, with the exception of Witness Tree/Navigation information which is only accessible under the Inventory and Monitoring area.

You can quickly move between these two options by using the **File / Use CSE Option** or **File / Use IM Option** selections, as shown in [Figure 15](#).

Figure 15: Exams PC File menu drop-down



STEP 4: SET UP THE EXAMS DEFAULTS

The defaults only need to be set up once. The defaults can be set up in ExamsPC and moved to one or more PDRs. The setup process includes user definitions, optional field selections, default sample designs, and setting data.

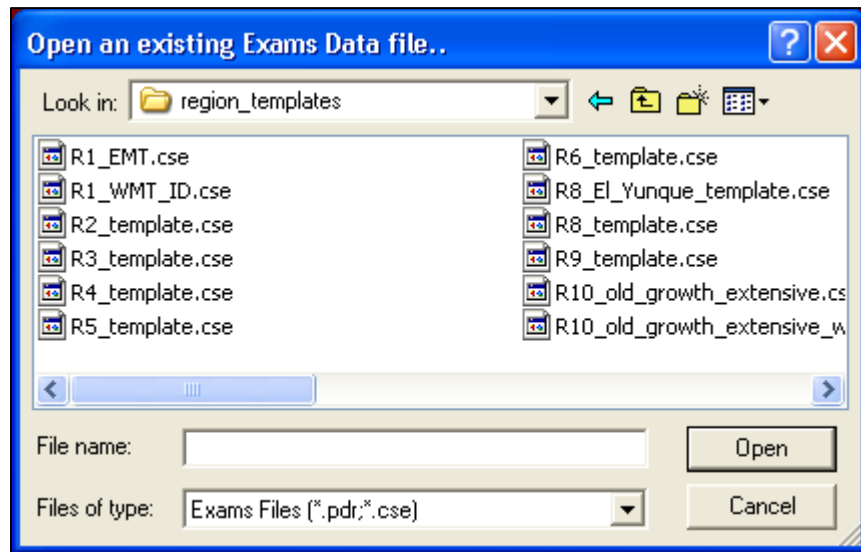
Step 4.1

First, save the Regional or Forest template file to another file where all the changes will be made. From the **ExamsPC** main screen, select **File**, then **Open**.

Step 4.2

Navigate to C:/Exams/stdexams/region_templates. Double-click on the file containing your Region or Forest template, as shown in [Figure 16](#).

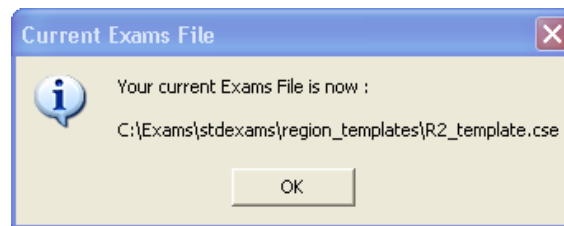
Figure 16: Open Exams file window



Step 4.3

The active file name is shown in the window title (top) of the ExamsPC window. A window will pop-up to indicate the current file you are working with. Click on OK.

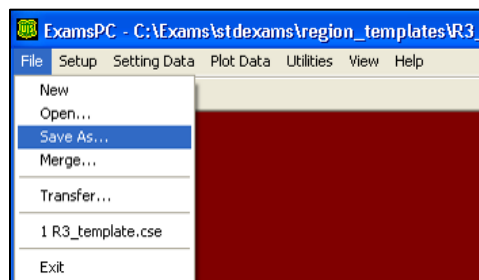
Figure 17: Current Exams File notice



Step 4.4

Select **File**, then click on **Save As**.

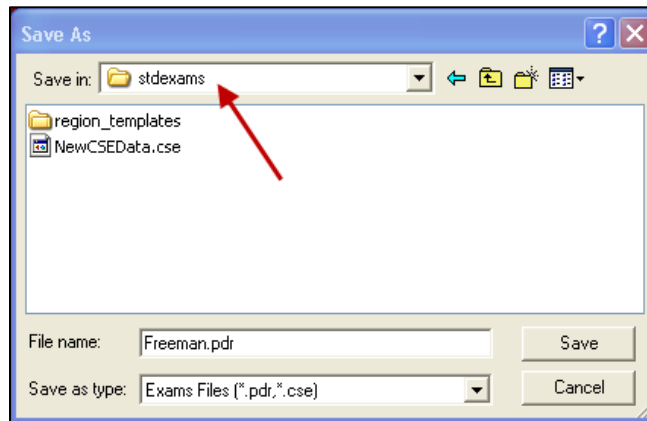
Figure 18: Exams PC File menu drop-down



Step 4.5

The **Save in:** field should contain the **stdexams** folder.

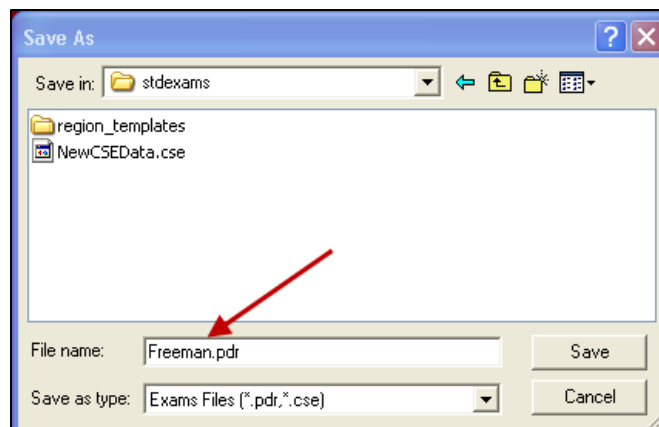
Figure 19: Save As window



Step 4.6

In the File name field, type in a new file name (such as your_lastname). Now you have copied the Region or Forest template file into another file with your last name as the file name, as shown in [Figure 20](#).

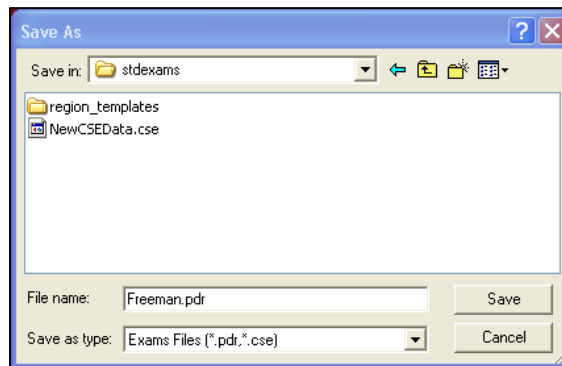
Figure 20: Save As window



Step 4.7

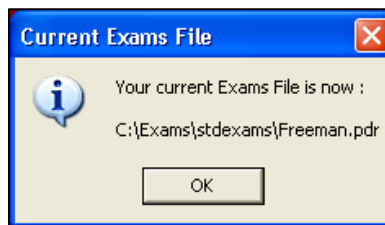
The **Save as type:** window should specify **Exams Files (*.cse, *.pdr)**, as shown in [Figure 21](#).

Figure 21: Save As window



Select **Save**, then **OK** to replace the file, as shown in [Figure 22](#).

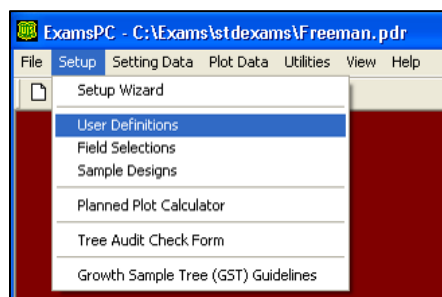
Figure 22: Current Exams File notice



Step 4.8

Select **Setup**, then **User Definitions**, as shown in [Figure 23](#).

Figure 23: Exams PC Setup Menu drop-down



If you have not yet set up any species codes, you will receive the message shown in [Figure 24](#).

Figure 24: Exams PC notice

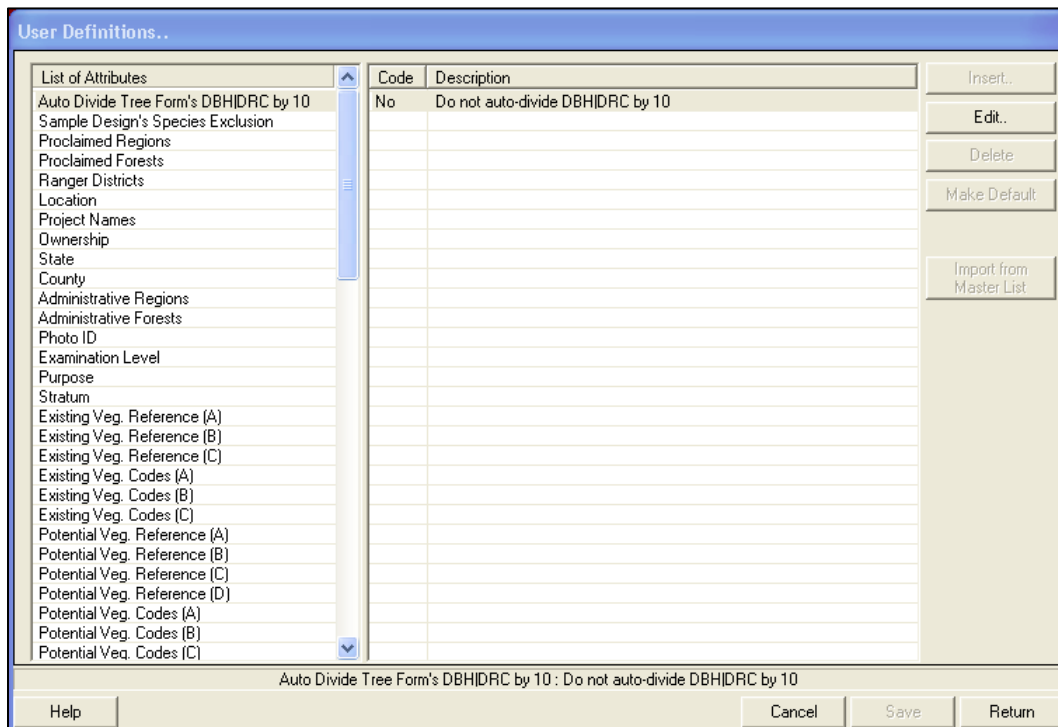


Click **OK** to go to the **User Definitions** screen.

Step 4.9

The **User Definitions** screen is shown in [Figure 25](#).

Figure 25: User Definitions form

The "User Definitions.." window has a blue title bar. On the left is a list box titled "List of Attributes" containing 28 items, including "Auto Divide Tree Form's DBHIDRC by 10", "Sample Design's Species Exclusion", "Proclaimed Regions", "Proclaimed Forests", "Ranger Districts", "Location", "Project Names", "Ownership", "State", "County", "Administrative Regions", "Administrative Forests", "Photo ID", "Examination Level", "Purpose", "Stratum", and various "Existing Veg. Reference", "Existing Veg. Codes", "Potential Veg. Reference", and "Potential Veg. Codes" entries. A vertical scrollbar is on the right of this list. On the right is a table with two columns: "Code" and "Description". The first row shows "No" in the Code column and "Do not auto-divide DBHIDRC by 10" in the Description column. To the right of the table are five buttons: "Insert..", "Edit..", "Delete", "Make Default", and "Import from Master List". At the bottom of the window is a status bar with the text "Auto Divide Tree Form's DBHIDRC by 10 : Do not auto-divide DBHIDRC by 10" and four buttons: "Help", "Cancel", "Save", and "Return".

The window on the left of the screen contains the **List of Attributes**, as shown in Figure ___. The window on the right of the screen contains a list of **Codes and Descriptions** for each attribute.

Each list may be customized to fit your needs. You may delete codes you do not use. You may designate which codes will be displayed in the LOV lists. All inserted codes must be a subset of the nationally-approved codes list.

The buttons to the far right of the screen have the following functions. [Figure 26](#) shows the **Insert** button, used to insert a new code and description into the list. The form used to insert new codes is shown in [Figure 27](#).

Figure 26: Insert button

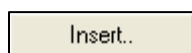
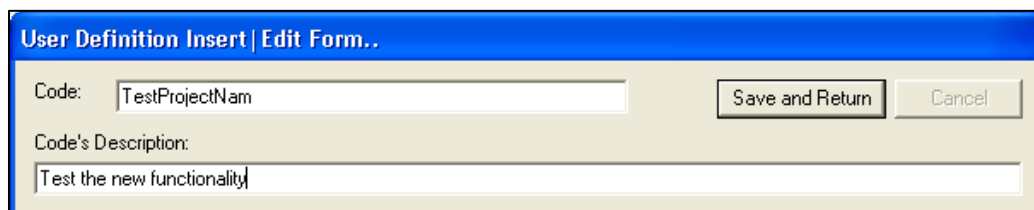


Figure 27: User Definition Insert | Edit form

A dialog box titled "User Definition Insert | Edit Form..". It has a blue title bar. Inside, there are two text input fields. The first is labeled "Code:" and contains the text "TestProjectNam". The second is labeled "Code's Description:" and contains the text "Test the new functionality". To the right of the first field are two buttons: "Save and Return" and "Cancel".

The **Edit** button, as shown in [Figure 28](#), is used to edit an existing code or description in the list. Select the code name first, then select **Edit**. The Edit form is shown in [Figure 29](#).

Figure 28: Edit button

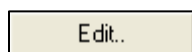
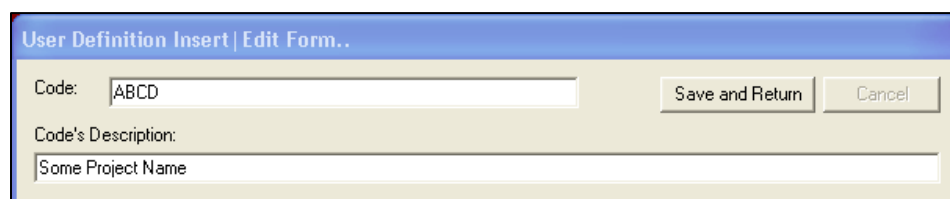


Figure 29: User Definition Insert | Edit form

A dialog box titled "User Definition Insert | Edit Form..". It has a blue title bar. Inside, there are two text input fields. The first is labeled "Code:" and contains the text "ABCD". The second is labeled "Code's Description:" and contains the text "Some Project Name". To the right of the first field are two buttons: "Save and Return" and "Cancel".

The **Delete** button, as shown in [Figure 30](#), is used remove an existing code and description from the list. Select the code name first, then select **Delete**. You will get a **Deletion Notice** confirmation window, as shown in [Figure 31](#).

Figure 30: Delete button

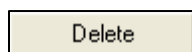
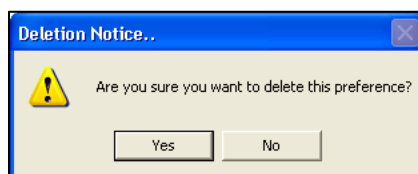


Figure 31: Deletion Notice



There are steps you can take to delete a large number of items without having to delete them one-by-one.

1. **Click** on the first item in the list
2. **Control-Shift-click** on the last item in the list

3. **Control-click** on any items in between the start and stop items to keep them in the list
4. Hit the **Delete** button on your keyboard

To change which code in the list is the default, click on the code, then select the Make Default button, as shown in [Figure 32](#). Default codes are automatically entered into the forms, but they may be changed on the forms at any time. To remove Default status from a code, click on the Remove (Default) button, shown in [Figure 33](#).

Figure 32: Make Default button



Figure 33: Remove Default button

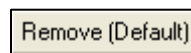


Figure 34: User Definitions form

Code	Description
01	Northern Region
02	Rocky Mountain (Default)
03	Southwest
04	Inter Mountain
05	Pacific Southwest
06	Pacific Northwest
08	Southeast
09	Northeast
10	Alaska

The buttons along the bottom of the screen have the following functions:

The Help button, shown in [Figure 35](#), provides a helpful hint, depending on which screen the cursor is in. An example of a hint is shown in [Figure 36](#).

Figure 35: Help button

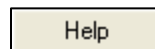
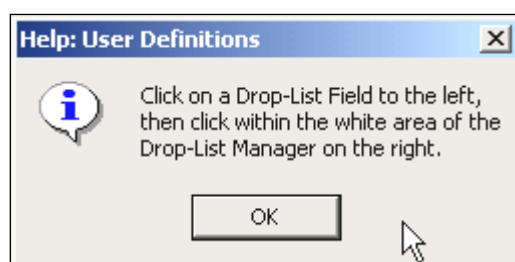
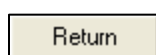


Figure 36: Help: User Definitions hint



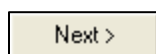
The Return button, shown in [Figure 37](#), this button is used to return you to the previously linked window.

Figure 37: Return button



The Next button, shown in [Figure 38](#), provides a helpful hint, depending on which screen the cursor is in.

Figure 38: Next button



The Cancel button, shown in [Figure 39](#), deletes all changes made since the last Save command. A warning message, shown in [Figure 40](#), is displayed.

Figure 39: Cancel button

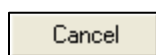
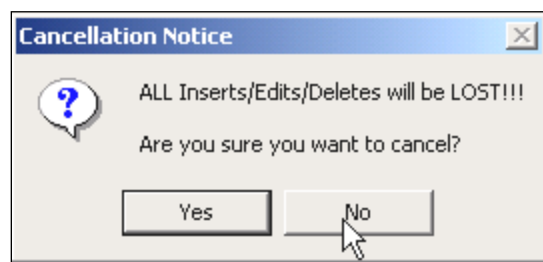
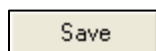


Figure 40: Cancellation Notice



The Save button saves all changes made and returns you to the main screen.

Figure 41: Save button



Step 4.10

Go through each selection of the List of Attributes and customize it to fit your needs. Detailed descriptions of each field can be found in [Chapter 4](#), however, a brief description of each selection follows.

- **Auto Divide Tree Form's DBH / DRC by 10:** automatically set to **No**. This is usually how it should remain. However, if you are recording diameter to the 1/10th of an inch and you do not want to enter the decimal, change this default to **Yes**.
- **Species Exclusion:** (optional) is a list of tree species that are not going to be sampled. This is a rarely used sample design feature and should be discussed with the Regional CSE coordinator before use.
- **Proclaimed Regions:** if you opened the Regional or Forest default file, the correct proclaimed Region should already be set as the default.
- **Proclaimed Forests:** if you are working on a Forest that has been administratively combined, such as the Winema-Freemont, enter the proclaimed number of the Forest upon which you are collecting data.
- **Ranger Districts:** select the district upon which you are collecting data, and set it as the default.
- **Location:** enter one or two location IDs for the stands you are collecting data on. Only integers, upper or lower case alpha characters, and underscores are allowed in this field.
 - **Region 1:** uses a 2-digit compartment code plus a 2-digit sub-compartment code
 - **Region 2:** uses R2VEG watershed alias or other partition identification (exactly 6 characters)
 - **Region 3:** uses a 6-character location value, padded with leading zeroes if necessary
 - **Region 4:** uses a 6-character location value, padded with leading zeroes if necessary
 - **Region 8:** uses a 4-digit compartment number; leading zeroes are required
 - **Region 9:** uses a compartment number (no characters) that is a maximum of five digits; leading zeroes ARE required to a maximum of five digits
 - **Region 10:** uses a five-digit TM-compartment number
- **Project Names:** enter one or more Project Names for the stands you are
- **Ownership:** select the owner of the land upon which the exam is conducted. The default is set to US Forest Service.
- **State:** (optional) select the State within which the exam is conducted, and set it as the default.
- **County:** (optional) select the County within which the exam is conducted, and set it as the default.
- **Administrative Regions:** if you opened the Regional or Forest default file, the correct administrative Region should already be set as the default.
- **Administrative Forests:** if you are working on a Forest that has been administratively combined, such as the Winema-Freemont, enter the Administrative number of the Forest upon which you are collecting data. If you are working on a Forest which has not been combined, the administrative and proclaimed numbers are the same.
- **Photo ID:** (optional) enter the photo ID of the photo pair containing the stand. This ID must already exist in the FSveg database.
- **Examination Level:** Enter the exam level of the stand exam. First, select the **Edit** button to access a pop-up window to assist you in entering the data. Set up the most commonly used level and set it as the default.
- **Purpose:** Select the exam purpose. For Stand Exams, the default is set to "SE." For Inventor and Monitoring exams, the default is set to "IM."

- **Stratum:** (optional) enter one or more stratum IDs. Set one ID as the default.
- **Existing Veg. Reference:** (optional) select up to three existing vegetation references to use. Click on the **Edit** key to see a list of references, select one as default.
- **Existing Veg. Code:** (optional) for each existing vegetation reference selected above, you may edit the list of codes and select one to be the default.
- **Potential Veg. References:** (optional) select up to three potential vegetation references to use. Click on the edit key to see a list of references. Select one as the default.
- **Potential Veg. Codes:** (optional) for each potential vegetation reference selected above, you may edit the list of codes and select one as the default.
- **Fuel Photo Reference:** (optional) select up to three Fuel Photo references to use. Click on the Edit key to see a list of references. Select one as the default.
- **Residue Description Codes:** (optional) for each fuel photo reference selected above, you may edit the list of residue description codes and select one as the default.
- **Examiner(s):** (optional) enter one or more sets of last name(s) of the person(s) collecting the data. Select one set as the default.
- **Precision Protocols:** select one of the precision protocols as the default. The main difference is the intensive measures DBH to a 1/10th of an inch, the extensive measures DBH to the nearest inch, and the quick measures DBH to the nearest 2-inch class.
- **Setting User Field:** (optional) R8 and R9 use this field to record Land Class. This field is open for use by all other Regions. Enter the set of codes you wish to use in this field on the Setting form.
- **Fuel Model Codes:** (optional) this field contains the predominant setting fuel model determined by the plurality of sample plot fuel model codes. You may set a default fuel model if the same model will occur repetitively on many settings.
- **Species Mgt. Interest:** (optional) this field contains a list of the TESP, noxious, introduced, and invasive species. You may customize this list to only contain the species found in your sample area.
- **Lat.-Long. Reference Datums: (REQUIRED)** set the default setting datum. The three choices are: NAD27, NAD83, and WGS84.
- **GPS Comm. Ports:** (optional) is used to specify which PDR communication port is hooked up to the GPS receiver. Highlight the appropriate communication port (suggestions by type of PDR are in the Description field), then select the **Default** button. The GPS receiver has to be set to output NMEA-formatted information. Most (if not all) GPS receivers have this capability. Receivers like the Garmin or Magellan aren't automatically set to output the NMEA-formatted information unless you go through its **Setup** utility.
- **Plot User Field:** (optional) this field is open for use to all Regions. Enter the set of codes you wish to use in this field on the Plot form.
- **Tree Class Codes:** (optional) edit this list according to which codes you will use.
- **ree Species:** edit this list according to which species are found in your sample area. If you are in a stand with predominately one species, you may set that species as the default. To pull in a list of trees stored in TAXA, select the Import from TAXA button, shown in [Figure 42](#). You will then eAuthenticate and the list that matches your Region and Forest will be retrieved from TAXA. If you do not have a list that matches your Forest, the Regional list will be retrieved. Click on the header of any column and the list will sort alphabetically.

Figure 42: Import from TAXA button

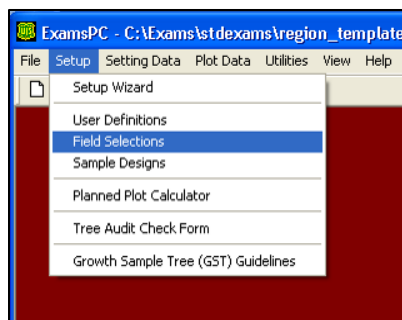


- **Tree User Field:** (optional) this field is open for use to all Regions. Enter the set of codes you wish to use in this field on the Plot form.
- **Tree Treatment Option:** (optional) the first code is used by FVS for the cut/leave field. All other fields are open to use.
- **Veg. Species:** edit this list according to which species are found in your sample area. To pull in a list of species (other than trees) stored in TAXA, select the **Import from TAXA** button. You will then eAuthenticate and the list that matches your Region and Forest will be retrieved from TAXA. If you do not have a list that matches your Forest, the Regional list will be retrieved. Click on the header of any column and the list will sort alphabetically.
- **Veg. User Field:** (optional) this field is open for use to all Regions. Enter the set of codes you wish to use in this field on the vegetation form.
- **Ground Surface Cover:** (optional) edit this list according to which codes are found in your sample area, or according to how precise you intend to sample.
- **Damage Categories:** (optional) these lists only contain the damage agents found in your Region. You may edit them to only show those found in your sample area.

Step 4.11

From the **ExamsPC** main menu bar, select **Setup**, then **Field Selections**, as shown in [Figure 42](#).

Figure 43: ExamsPC Setup drop-down menu



Step 4.12

Plot Selection: use the following screen to select the fields to be displayed on the plot form. Click in the appropriate table cells to toggle the selections on or off.

- **Selected:** selected fields are displayed on the plot form
- **Required:** a field must first be selected before it can be required. Required fields are checked upon exit of the plot form. An error message is produced if a required field is blank.
- **Duplicate Row:** a field must first be selected before it can be duplicated. When a new blank line is accessed, the value from the previous line is duplicated. The duplicated value may be overwritten.

Figure 44: Plot Selection screen

Field Selection : Plot Selection			
Field Title	Selected	Required	Duplicate Row
Latitude			
Longitude			
Capable Growth Area	X		
Aspect	X		
Slope	X		
Slope Position			
Slope Horizontal Shape			
Slope Vertical Shape			
Elevation	X		
Existing Vegetation	X		
Potential Vegetation	X		
Fuel Model			
Residue Description Code			
Distance to Seed Wall			
User Defined Field			

Selected

Help < Back Next > Cancel Save Return

Step 4.13

When finished, select **Next** to move to the Tree Fields Selection.

Step 4.14

Tree Selection: choose the fields to be selected, required, and duplicated by each of the three exam types: quick plot, extensive exam, and intensive exam. Click in the appropriate table cell to toggle the selection on or off. Depending on the examination type, some of the fields will be pre-selected and required.

Make the Tree field selections for each of the **Quick**, **Extensive**, and **Intensive** tabs by selecting each tab with the mouse. You must **Save** the selections in each exam type before moving on to the next tab.

- **Selected:** selected fields are displayed on the tree form
- **Required:** a field must first be selected before it can be required. Required fields are checked upon exit of the plot form. An error message is produced if a required field is blank.
- **Duplicate Row:** a field must first be selected before it can be duplicated. When a new blank line is accessed, the value from the previous line is duplicated. The duplicated value may be overwritten.

Figure 45: Field Selection form

Field Title	Selected	Required	Duplicate Row
Tree Status	☒	☒	
Tree Count	☒	☒	
Diameter (DBHD/DRC)	☒	☒	
Tree Damage	☒		
Tree Class			
StemGST			
Tree Species	☒	☒	
Tree Height	☒	☒	
Height To Crown			
Radial Growth (1)			
Radial Growth (2)			
Height Growth			
Age			
Crown Ratio	☒	☒	
Crown Class			
Wildfire Use			
LogSnag Decay	☒		
Cone Serotiny			
DRC Spec. (# Stems)	☒		

Step 4.15

When finished, select **Next** to move to Vegetation Field Selection.

Step 4.16

Vegetation Selection: choose the fields to be selected, required, and duplicated by each of the three forms: Cover by Lifeform, Cover by Species and Layer, and Cover by Species. Click in the appropriate table cell to toggle the selection on or off. Depending on the examination type, some of the fields will be pre-selected and required.

- **Selected:** selected fields are displayed on the tree form
- **Required:** a field must first be selected before it can be required. Required fields are checked upon exit of the plot form. An error message is produced if a required field is blank.
- **Duplicate Row:** a field must first be selected before it can be duplicated. When a new blank line is accessed, the value from the previous line is duplicated. The duplicated value may be overwritten.

Make the Vegetation field selections for each of the three forms by selecting each tab with the mouse arrow. You must Save the selections under each tab before moving on to the next tab.

Figure 46: Field Selection form, Cover by Lifeform tab

Field Title	Selected	Required	Duplicate Row
Canopy Cover	X	X	
Height	X		
DBHDRC	X		
User Defined Field			
Remarks	X		
Optional Lifeforms			
Herbs	X		
Algae	X		
Lichen	X		
Fungus	X		
Woody Liana	X		
Woody Subshrub	X		
Herb. Vine	X		
Nonvasc. Plant	X		
Unknown	X		
All Vasc. Plants	X		

Selected

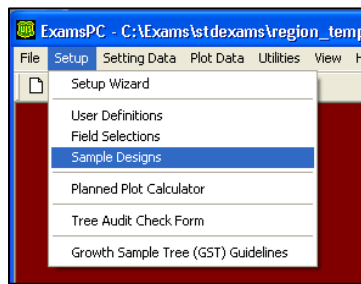
Help < Back Next > Cancel Save Return

Clicking on the Return button will exit this form.

Step 4.17

Sample Design Selection: from the main menu, select **Setup**, then **Sample Designs**.

Figure 47: ExamsPC Setup drop-down menu



Step 4.18

The sample design most commonly used can be set up as the default. Each time a new setting is created, it is automatically assigned the default sample design. A default sample design can be stored for each of the tree, vegetation, surface cover, and down woody forms.

Figure 48: Default Sample Design form

Meth	ExpFac	Azm	Cond.	SubFiltr	Var	MinV	MaxV	Remarks
TRN	6.00		---	DO'WN	DIA	0.01	0.24	
TRN	6.00	45	---	DO'WN	DIA	0.25	0.99	
TRN	12.00		---	DO'WN	DIA	1.00	2.99	
TRN	50.00		---	DO'WN	DIA	3.00	999.99	

Select **Save** once all choices have been made.

Refer to the Sample Design section in [Chapter 4](#) for detailed information about sample designs. Following is a quick description of each field in the tree sample design form:

- **Meth:** the method used to sample; choices are usually BAF (Basal Area Factor) or FRQ (frequency of fixed plot area)
- **ExpFac:** expansion factor; choices are the BAF or the inverse of the fixed area plot size. A “40” indicates a 40 BAG or a 1/40th acre fixed area plot
- **Azm:** starting azimuth; used for transects
- **Cond:** condition; linked to previous line with an **AND** or an **OR** clause
- **SubFiltr:** subpopulation filter; are the trees being sampled live, dead, down, or both live and dead
- **Var.:** variable; what part of the tree is being measured to see if it fits these criteria (DBH, height, etc.); in the Vegetation Composition tab this value is always set to CVR; in the Ground Surface tab this value is always set to **SVC**.
- **Minv:** minimum value of the variable; i.e., a minimum of 5.0 DBH
- **MaxV:** maximum value of the variable; i.e., a maximum of 999.9 DBH; in the Vegetation Composition and Ground Surface Cover tabs, this value is always set to 100%.

Step 4.19

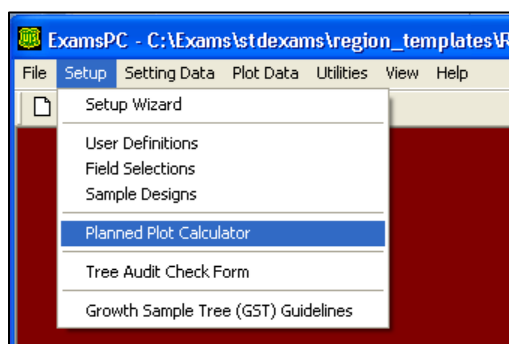
In the Down Woody tab, select the **Options** button to select one of the four types of collection protocols. The collection protocols are:

- **Brown’s Survey:** to collect data according to Brown’s protocol
- **Photo Series:** to record tons/acre and volume/acre based on a collection of photographs
- **Piece Count:** to collect piece data on a fixed area plot

Step 4.20

From the main menu bar, select **Setup**, then **Planned Plot Calculator**.

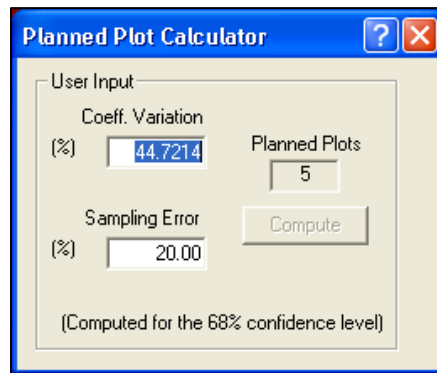
Figure 49: ExamsPC Setup drop-down menu



Step 4.21

This screen will assist you in determining how many plots to install in order to meet a specified Sampling Error, given a known Coefficient of Variation.

Figure 50: Planned Plot Calculator



The image shows a 'Planned Plot Calculator' dialog box. It has a title bar with a question mark and a close button. The main area is titled 'User Input' and contains three input fields: 'Coeff. Variation (%)' with the value '44.7214', 'Planned Plots' with the value '5', and 'Sampling Error (%)' with the value '20.00'. There is a 'Compute' button to the right of the 'Sampling Error' field. At the bottom, it says '(Computed for the 68% confidence level)'.

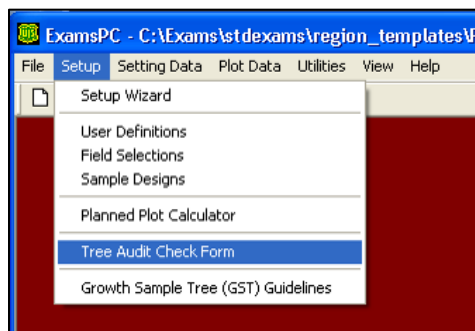
Enter the estimated Coefficient of Variation and desired Sampling Error values. Then click on the Compute button. The number of plots required to achieve the desired sampling error, given the estimated Coefficient of Variation, is displayed in the Planned Plots field.

Click on the X in the upper right corner of the window to close it.

Step 4.22

From the main menu bar, select Setup, then Tree Audit Check Form, as shown in [Figure 50](#).

Figure 51: ExamsPC Setup drop-down menu



Step 4.23

This form facilitates automatic checking routines to verify tree data outside the user-specified range of allowable data.

Figure 52: Audit Check form

Table 1: Audit Check field descriptions

Field	Description
Species	List of all tree species in the Setup/User Definition/Tree Species list
Max DBH	Maximum diameter allowed for this species
Min Hgt	Minimum height allowed for this species
Max Hgt	Maximum height allowed for this species
C1	First coefficient used to calculate a height/diameter relationship. If this is the only coefficient entered, the relationship is assumed to be a linear relationship in the form of: Height = 4.5 + (C1 * DBH)
C2	Second coefficient used to calculate a height/diameter relationship. If both C1 and C2 are entered, the relationship is assumed to be Wycoff's height/diameter relationship in the form of: Height = 4.5 + exp(C1 + C2 /(DBH + 1.0))
C3	Third coefficient used to calculate a height/diameter relationship. If C1, C2, and C3 are all entered, the relationship is assumed to be Curtis-Arney's height/diameter relationship in the form of: Height = 4.5 + C1 **exp(-C2 pow(DBH,C3))
HgtTot%	Percentage of the calculated height/diameter relationship that a species must be over or under to be flagged as outside the range of normal height/diameter relationships for a species <i>Note: Any height/diameter relationship that is greater or less than the specified height total percentage specified above is flagged as being outside the range of normal height/diameter relationships for a species.</i>
Max RaG1	Maximum radial growth value for this species

Field	Description
Max RaG2	Maximum radial growth 2 value for this species
Max HgtG	Maximum height growth allowed for this species
Min Age	Minimum age allowed for this species; this value is not meaningful and will be removed in future versions
Max Age	Maximum age allowed for this species
Yrs DBH	The number of years it takes a species to reach 4.5 feet tall; this value is used to calculate an age/diameter relationship in the form of: Age = Years to DB + age * DBH Any age/diameter relationship that is greater than or less than the specified height total percentage specified above is flagged as being outside the range of normal age/diameter relationships for a species
A1	The coefficient used to calculate an age/diameter relationship; any age/diameter relationship that is greater than or less than the specified Age Tot % specified below is flagged as being outside the range of normal age/diameter relationships for a species
AgeTot%	Percentage of the calculated age/diameter relationship that a species must be over or under to be flagged as outside the range of normal age/diameter relationships for a species

Step 4.24

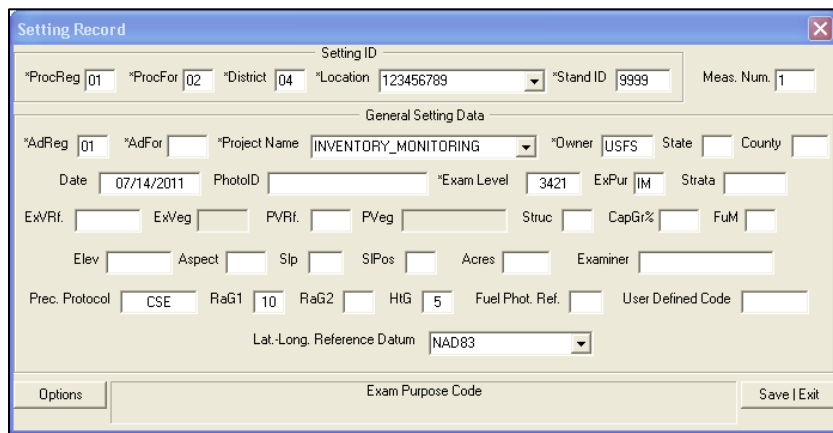
From the main menu bar, select **Setting Data**, then **Setting Record (Insert/Edit/Delete)**.

Figure 53: Insert | Edit | Delete a Setting Record form

Step 4.25

Select the **Insert** button at the top of the previous screen.

Figure 54: Setting Record form

A screenshot of the 'Setting Record' form. The form has a title bar 'Setting Record' with a close button. It contains several input fields and dropdown menus. At the top, there's a 'Setting ID' section with fields for '*ProcReg' (01), '*ProcFor' (02), '*District' (04), '*Location' (123456789), '*Stand ID' (9999), and 'Meas. Num.' (1). Below this is a 'General Setting Data' section with fields for '*AdReg' (01), '*AdFor' (empty), '*Project Name' (INVENTORY_MONITORING), '*Owner' (USFS), 'State' (empty), 'County' (empty), 'Date' (07/14/2011), 'PhotoID' (empty), '*Exam Level' (3421), 'ExPur' (IM), 'Strata' (empty), 'ExVRf.' (empty), 'ExVeg' (empty), 'PVRf.' (empty), 'PVeg' (empty), 'Struc' (empty), 'CapGr%' (empty), 'FuM' (empty), 'Elev' (empty), 'Aspect' (empty), 'Slp' (empty), 'SlPos' (empty), 'Acres' (empty), 'Examiner' (empty), 'Prec. Protocol' (CSE), 'RaG1' (10), 'RaG2' (empty), 'HTG' (5), 'Fuel Phot. Ref.' (empty), 'User Defined Code' (empty), and 'Lat.-Long. Reference Datum' (NAD83). At the bottom, there's an 'Options' button, an 'Exam Purpose Code' field, and a 'Save | Exit' button.

All of the fields with defaults are already populated. Create a setting for each stand for which you will collect dat. These can be settings in a project, for a contractor, or for a field crew. Detailed information about each field in the setting form can be found in [Chapter 4](#). When all of the settings have been entered, return to the main menu.

Step 4.26

From the main menu bar, select **Setting / Data**, then **Sample Design form**.

Figure 55: Sample Design form

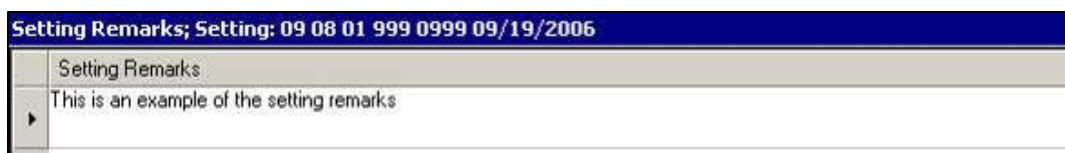
Tree	Veg. Composition		Ground Surface Cover		Down Woody Material (Design Unavailable)			
Meth	ExpFac	Azm	Cond.	SubFiltr	Var	MinV	MaxV	Remarks
BAF	10.00		---	LIVE	DBH	5.00	999.99	
FRQ	100.00		---	LIVE	DBH	0.01	4.99	
			OR	LIVE	HGT	0.50	4.49	
BAF	5.00		---	DEAD	DBH	10.00	999.99	

Select a setting, and then click on the **Next** button to view the sample design associated with each setting. Make any necessary changes and then click the **Save** and **Return** buttons. Check the sample design for each setting in the list. Return to the main menu.

Step 4.27

From the main menu, select **Setting Data**, then **Setting Remarks**.

Figure 56: Setting Remarks

A screenshot of the 'Setting Remarks' form. The title bar says 'Setting Remarks; Setting: 09 08 01 999 0999 09/19/2006'. The form has a 'Setting Remarks' label and a text area containing the text 'This is an example of the setting remarks'. There is a small arrow icon to the left of the text area.

Select a setting, and then click on the **Next** button. Enter remarks to be stored with each setting, Then click the **Save** and **Return** buttons. Return to the main menu.

Step 4.28

From the main menu, select **Plot Data**, then **Plot Form**.

Figure 57: Plot Data for Setting form

Plot Data for Setting: 0908019990999_09/19/2006									
Plot #	Latitude	Longitude	CaG%	ASP	Slp%	SP	SH	SV	Elev
1			100	56	56				89
2									

Select a setting, and then click on the **Next** button.

If you know the number of plots to be collected in each setting, use the down arrow to create them now.

If you know the Latitude and Longitude of each plot, enter this information.

Step 4.29

If the entire sample design will not be implemented on each plot, select the sample design/selection criteria that describe each plot. Select the **Options** button at the bottom of the form, then select **Sample Design(s) by Plot**.

Figure 58: Plot Sample Design Selection for Setting form

Plot Sample Design Selection for Setting: 0908019990999_09/19/2006									
Cancel Exit									
Sample Designs								Plot 1	Plot 2
TREE	BAF	10.00	---	LIVE	DBH	5.00	999.99	X	X
TREE	FRQ	100.00	---	LIVE	DBH	0.01	4.99	X	X
TREE	FRQ	100.00	OR	LIVE	HGT	0.50	4.49	X	X
TREE	BAF	5.00	---	DEAD	DBH	10.00	999.99	X	X
VEG	FRQ	100.00	---	LIVE	CVR	1.00	100.00	X	X
SFC	FRQ	100.00	---		SVC	1.00	100.00	X	X

Step 4.30

Select which sample design/selection criteria set will be implement on each plot.

Click on the **Exit** button to return to the plot form.

Click the **Save** and **Return** buttons to return to the main menu.

Step 4.31

Once all of the defaults have been set, close the **ExamsPC** window.

STEP 5: MOVE THE EXAMSCCE SOFTWARE AND DEFAULTS FROM PC TO PDR

Step 5.1

Turn on the PDR. If you are working with a Casio, this is the pink key.

Step 5.2

Connect the PDR to the PC by one of the following methods:

- **Serial cable:** connect the communications serial cable from PC com port to the PDR
- **USB port:** connect the USB communications cable from PC USB port to PDR
- **Cradle:** Place the PDR in the cradle, then connect the cradle to the PC via either a USB or serial cable

On the Allegro CE, select the **PC_Link** icon to start ActiveSync.

Step 5.3

If you have a dual boot (DOS and Windows CE) PDR and if the PDR is showing the DOS (C:\>) prompt, type the letters **wce** then press the **Enter** key. This will reboot your PDR to the Windows CE operating system.

Step 5.4

Generally, the PDR will beep and display a window indicating that it is trying to make a connection with the PC via ActiveSync.

On the Allegro CE:

1. Select **Start -> Settings -> Control Panel**
2. Double-click the **Communications** icon
3. Select **PC Connection**
4. Select **Change** on the bottom right-hand side
5. Select the pull-down list
6. To use a USB port, select **USB**
7. To use the serial port, select **com1@57600 baud**
8. Select **OK**, then **OK** again

Note: occasionally, when the PDR is connected to the PC for the first time, the PC will respond that a new USB device has been found. It will then attempt to **Add the New Hardware** and inform you that you have insufficient privileges. In this case, see your system administrator to obtain the proper privileges.

Step 5.5

After a brief period (please be patient), the PC will display a **New Partnership** or **Set Up a Partnership** window **OR** a **New Partnership** tab will appear on the bottom of your PC screen. Select this tab to bring up the window.

DO NOT establish a **Partnership**. Select either **No** or **Guest Partnership** then select **Next**. If a box pops up informing you that a partnership has not been established, close the message box.

If the "Partnership" window does not appear within 30 seconds, select the ActiveSync icon located on the PC desktop, or select **Start -> Programs -> Microsoft ActiveSync**. Select

File -> Communication Settings. The **Communication Settings** window is now displayed. Select **COM1** from the drop-down list.

Step 5.6

The ActiveSync window will appear. A window with Connected and green circle icon indicates success. Click on the X in the upper right corner of the ActiveSync window to close this window. The ActiveSync icon, shown in [Figure 58](#), will be displayed in your system tray at the bottom right corner of the PC screen.

Figure 59: ActiveSync icon



Step 5.7

From your PC desktop, select the **ExamsPC** short-cut icon or:

- Double-click on the **My Computer** icon to open up a Windows Explorer window
- Double-click on the **Local Disk (C:)** folder
- Double-click on the **EXAMS** folder
- Double-click on **ExamsPC.exe**

Step 5.8

At the top of the **ExamsPC** program, select the **file transfer** icon.

Figure 60: File transfer icon



Step 5.9

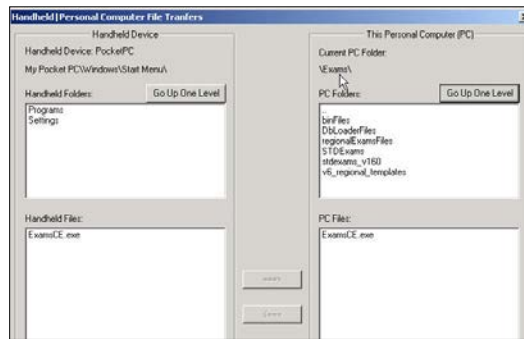
The left portion of the screen is the PDR and the right portion of the screen is the PC.

On the left portion of the screen, navigate to:

- For Axim, IPAQ, Cassio, or Q100: **Windows -> Start Menu -> Programs**
- For Q100 and Q200: **My Computer -> System folder**, or **My Computer -> Program Files** for the first option is saved in non-volatile memory on the system Compact Flash card
- For Husky: **My Handheld PC -> Compact Flash**
- For Allegro CE: **My Computer -> C:\ drive**
- For Trimble and Trimble Juno: **Windows -> Start Menu -> Programs**

On the right portion of the screen, navigate to **Exams**.

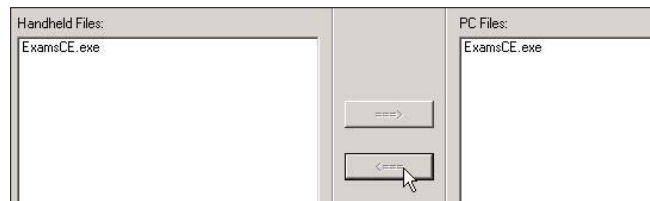
Figure 61: Handheld | Personal Computer File Transfers form



Step 5.10

On the right portion of the screen, select **ExamsPDR.exe**. Select the **left pointing arrow**.

Figure 62: Select ExamsPDR.exe



- The PDR program is copied from the PC to the PDR.
- If the PDR program already exists on the PDR, a pop-up window will ask if you want to replace it.
- If the ExamsCE program is currently running on the PDR, a pop-up window will instruct you to shut down the program on the PDR and retry the transfer. To shut it down, go to **Setting -> System -> Memory -> Running programs** and stop ExamsCE.

Step 5.11

Verify that the transfer was successful. On the PDR, select Start and verify that ExamsPDR is in the drop-down list.

Step 5.12

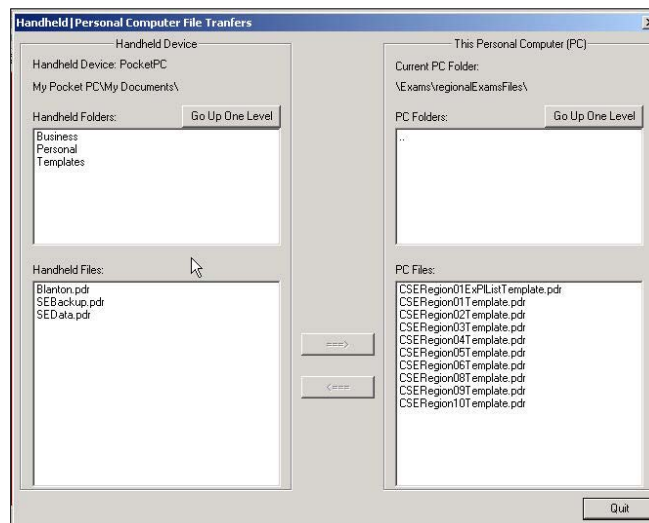
Move the default file from the PC to the PDR.

On the left portion of the screen, navigate to:

- For Axim, iPAQ, Cassio, Q100: **My Pocket PC -> My Documents**
- For Allegro CE: **My Computer -> C:\ drive -> Exams -> stdexams**

On the right portion of the screen, navigate to **Exams -> stdexams**.

Figure 63: Handheld | Personal Computer File Transfers form



Step 5.13

On the right portion of the screen, select **My_last_name.cse**. Then select the **left pointing arrow**.

The default file is copied from the PC to the PDR. If the file already exists on the PDR, a pop-up window will ask you if you want to replace it.

Step 5.14

To verify that the transfer was successful:

- On the PDR select **Start**, then select **ExamsCE** from the drop-down list to start ExamsCE
- Select **File -> Open**; the file **My_last_name.cse** should be in the list

If you get a “sharing violation” error when moving a file to the PDR, it is because ExamsCE is running in the background. To shut it down, go to **Setting -> System -> Memory -> Running programs** and stop ExamsCE.

Step 5.15

Close the transfer window by selecting Quit at the bottom right of the window.

Step 5.16

Disconnect the serial or USB cable from the PDR. This will break ActiveSync’s connection to your PC.

STEP 6: EXECUTE THE EXAMSCE SOFTWARE

Table 2: ExamsCE Software execution processes

Platform(s)	Process
Casio, Dell, Axim, iPAQ, Q100	Select Start , then ExamsPDR . If the exams software does not appear in the Start menu, it means there are nine items (the maximum) already in the Start menu. If this is the case, go to Settings , then Start menu , and remove or de-select some of the checked programs. Then check the ExamsPDR program.
Husky Fex21	Double-click on the Shortcut to ExamsPDR icon
Trimble GeoXT / GeoXM	Double-click on the Shortcut to ExamsPDR icon
Juniper Allegro Field PC, Allegro CE	Double-click on the Shortcut to ExamsPDR icon

GENERAL OPERATING NOTES

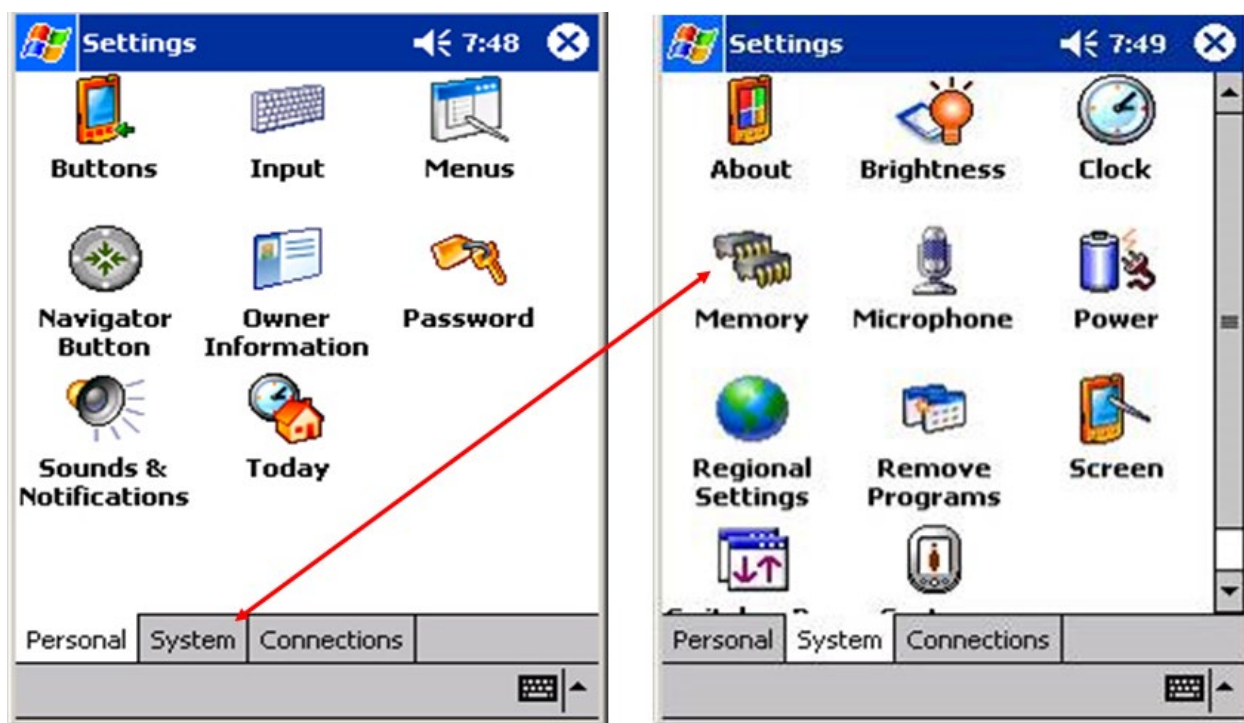
CLOSING THE EXAMSPDR PROGRAM

When closing the Exams program on the PDR, **DO NOT** use the X in the upper right corner of the window to close the program. This button will only **minimize** the program into the background. To close the program correctly, select **File -> Exit**. To check that all programs are close correctly, you may need to do a **Soft Reset** or go to the **Settings** part of the PDR and **Stop Programs**.

To perform a **Soft Reset**, use your stylus to press the Soft Reset button on the side of the PDR. The location varies with the make and model of the PDR. A **Soft Reset** does not delete your data or programs, it only closes any open programs and resets the PDR's registry.

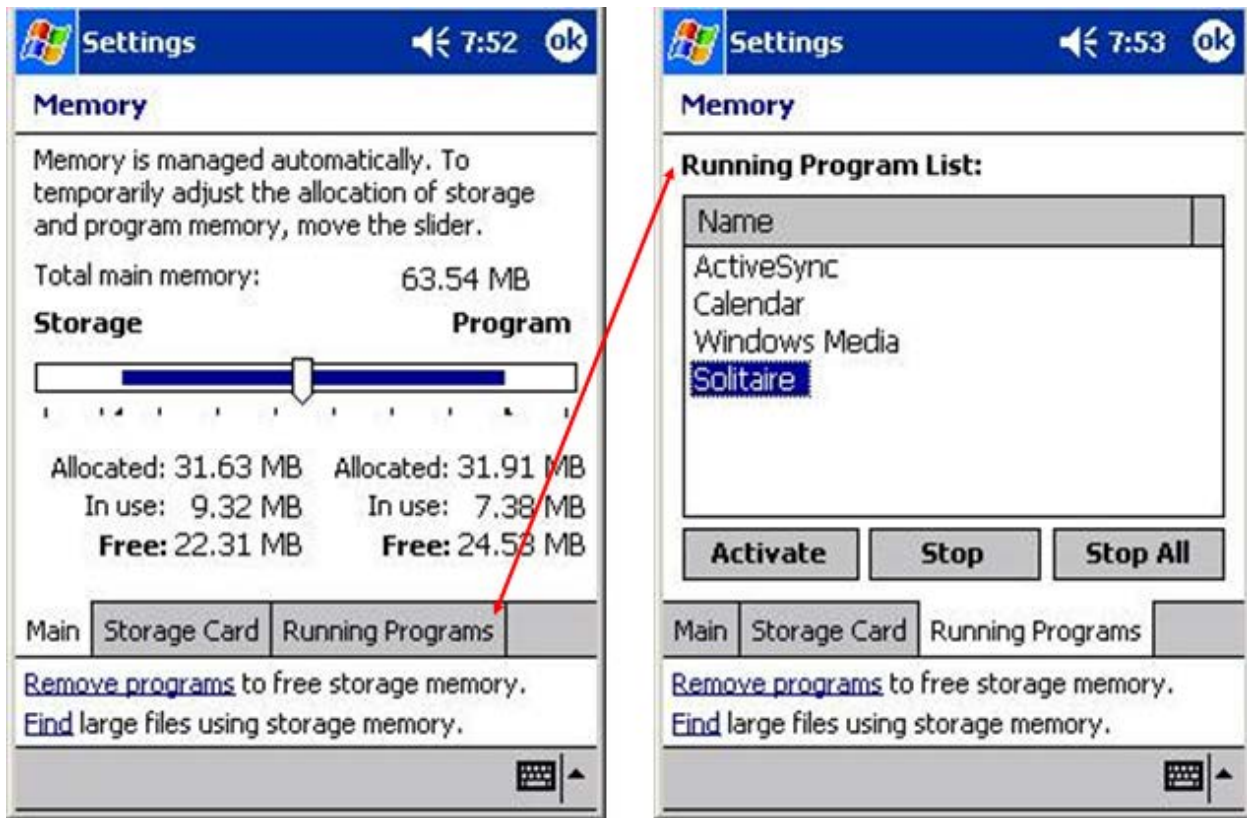
Stopping Programs will also improve the performance of your PDR as these programs are using RAM memory on the PDR. To Stop Programs, tap on **Start -> Settings**, and then tap the **System** button. Next, click on the **Memory** button.

Figure 64: Settings | System | Memory



In the **Memory** screen, click on **Running Programs** to view which programs are still in the background. You can **Stop All** or select them individually and then tap **Stop**.

Figure 65: Settings | Running Programs | Memory



RANDOM ACCESS MEMORY

Refer to individual PDR User Guides on how to check the Random Access Memory (RAM). The last number listed represents the number of characters of available RAM. Approximately 30,000 characters are needed for an average size setting. A PDR is for temporary data storage. Move data from the PDR to a more permanent data storage device such as a compact flash card, PCMCIA storage card, or a personal computer.

BATTERY

1. Refer to individual PDR User Guides on how to check the battery level
2. Charge the batteries **each** night for the next day
3. Pack spare batteries; use extended life batteries
4. Get a power adapter for the car to charge the PDR when traveling to and from the site
5. Remove modem and network cards, they draw extra power from the device even if they are not being used
6. Turn off the PDR and change the batteries immediately if a low battery message is displayed
7. If the PDR does not turn on, or the PDR turns on and immediately turns off, change the batteries immediately
8. Turn the PDR off when not in use
9. If there is a power loss in the field, the default file (.cse) is reset to the system default. To restore it to your defaults:
 - a. Select **File**, then **Open**

- b. Select **sebackup.pdr**
 - c. Select **File**, then **Save As**
 - d. Select **.cse**
10. Store data on external card, not internal memory
 11. Turn PDR off between plots to save battery and avoid data corruption

OPERATING THE CASIO

- Use the buttons on the left side of the machine to scroll up or down a line and to access the drop-down menus
- May use the keyboard's up and down arrows to scroll up or down a line
- To delete a line of data, use the delete button or use the keyboard, highlight a field, and use the backfield key

OPERATING THE HUSKY FEX 21

If you are unable to go to the field selection area and select or deselect a field to be include in the forms, or get to the tree age field because the recorder skips over the tree age field, do the following:

1. From the Husky main menu, select **Start** then **Settings**, then **Control Panel**
2. Double-click on **Display**, then select **Appearance**
3. On the right-hand side of the display locate the word **Scheme:**
4. Beneath the word **Scheme:** change the drop-down list to **Windows Standard**
5. Beneath the word **Item:** change the drop-down list to **3-D Objects**
6. Next to the Item: drop-down list, select the icon and select the lightest shade of gray (row 2)
7. Select **Apply**, **Save**, and then the small **OK** button located on the top right-hand corner of the **Display Properties** window
8. Select **OK** and close out to the main menu

OPERATING THE JUNIPER

To improve the Juniper's display, press the **yellow button** and **F3** key simultaneously to turn on the backlighting.

To see the CSE program, eliminate the task bar at the bottom of the Juniper by selecting **Settings**, then **Task bar**. Uncheck **Always on top** and check **Auto hide**.

If you are unable to go to the field selection area and select or deselect a field to include in the forms, or to get to the tree age field because the recorder skips over the tree age field, do the following:

- From the Juniper main menu, select **Start**, then **Setting**, then **Control Panel**
- Double-click on the **Display** then select **Appearance**
- On the right-hand side of the display, locate the word **Scheme:**
- Beneath the word **Scheme:** change the drop-down list to **Windows Standard**
- Beneath the word **Item:** change the drop-down list to **Desktop**
- Select **Apply** and then select the small **OK** button located at the top right-hand corner of the **Display Properties** window
- Select **OK** and close out to the main menu

OPERATING THE DELL AXIM

The plastic film screen protectors are shipped with a protective cover. Peel the protective cover off the screen protector before it is placed on the PDR. If the cover is not removed, the screen protector is too thick and the screen will not respond to the touch of the stylus.

For the Axim X50V, there is a button on the left-hand side of the machine that is programmed to start the voice recording feature. This will consume your battery power and storage space quickly. To deactivate this button:

1. Select the **Start** icon in the top left side of the screen, and then select **Settings**; you should be in the **Personal** sub-folder
2. Select the **Buttons** icons, and then select the **Record** button; this button should now be highlighted
3. Scroll down to Assign Program, and hit the **down menu arrow** on the right
4. Select the program to activate instead of Record, such as **Rotate Screen**

OPERATING THE COMPAQ IPAQ

Do not load the Dashboard software that is on the companion CD. It will lock up your iPAQ. If you need the dashboard software, obtain it from the [iPAQ website](#); select file **SP21023**.

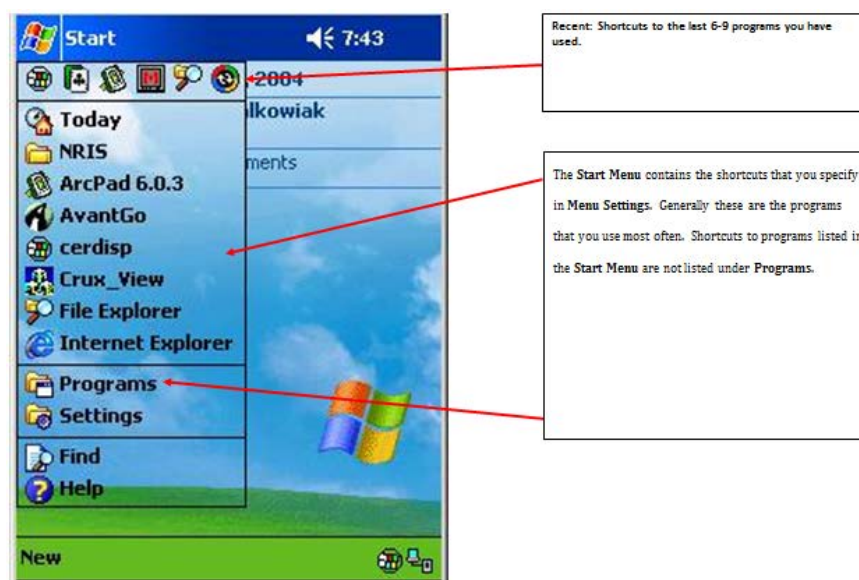
OPERATING THE COMPAQ IPAQ, DELL AXIM, TRIMBLE GEOXM AND GEOXT

Menus

Programs can be launched by tapping the shortcut in either the Start Menu or under Programs in the Start Menu.

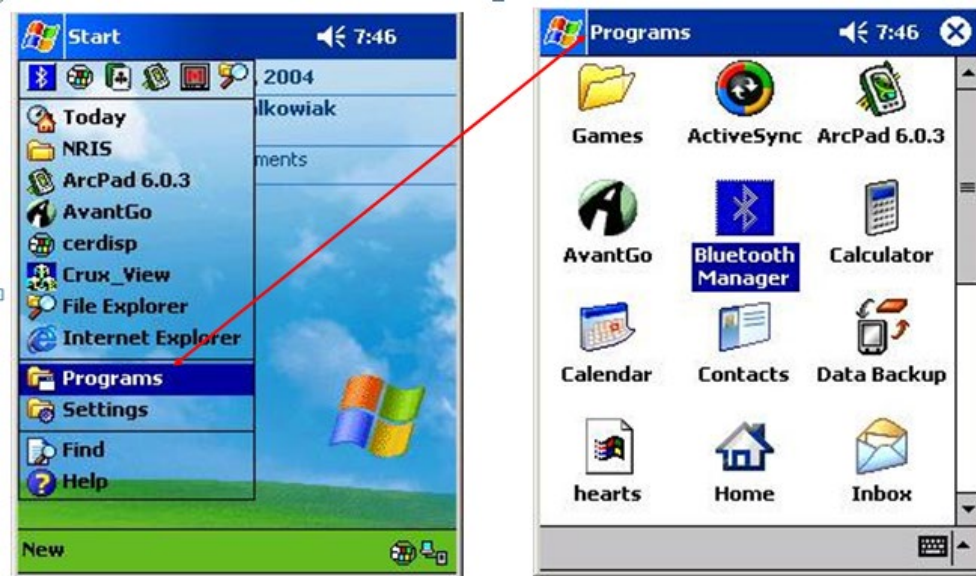
When you tap the **Start** button you will see software programs listed in two places: in the **Recent** bar and in the **Start Menu**.

Figure 66: Start Menu



Tapping **Start** -> **Programs** displays all of the programs on the PDR that aren't listed in the Start Menu.

Figure 67: Start | Programs



To change which shortcuts are displayed in the **Start Menu** and which shortcuts are listed under **Programs**, click on **Start** -> **Settings**.

Figure 68: Start | Settings



In the **Settings** menu screen, tap the **Menus** icon.

Figure 69: Settings | Personal | Menus



In the **Menus** screen, place a checkmark next to the programs you want displayed in the **Menu**. All other programs will be listed under **Programs** in the **Start Menu**.

Figure 70: Settings | Start Menu



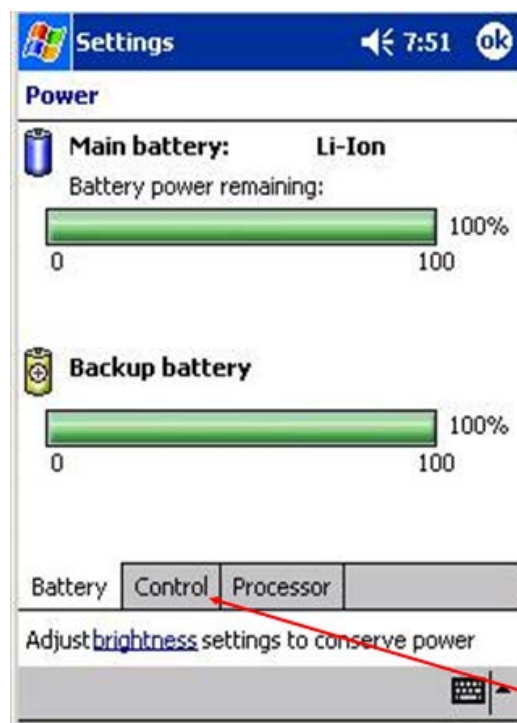
Energy Saving Tips and Screen Brightness

While in the field, save your battery power as much as possible, and always have one or more spare batteries.

There are several options for providing power for your PDR in the field including: chargers that plug into a power outlet or cigarette lighter in your vehicle, long-life batteries that can last from 12 to 24 hours, solar-powered chargers, or just having several standard batteries that you can interchange as much as needed.

One battery to check often and ensure has a good charge is your **Backup Battery**. This is watch-type battery that will save your data in the event your main battery goes dead. You can check your battery condition by tapping on **Start -> Settings -> System -> Power**.

Figure 71: Settings | Power



The best way to conserve battery power in the field is to turn off the PDR when it is not in use. You can also have the PDR automatically shut off after a specified time of non-use. To set the shut off time, tap **Start -> Settings -> System -> Power -> Control**.

Figure 72: Settings | Power

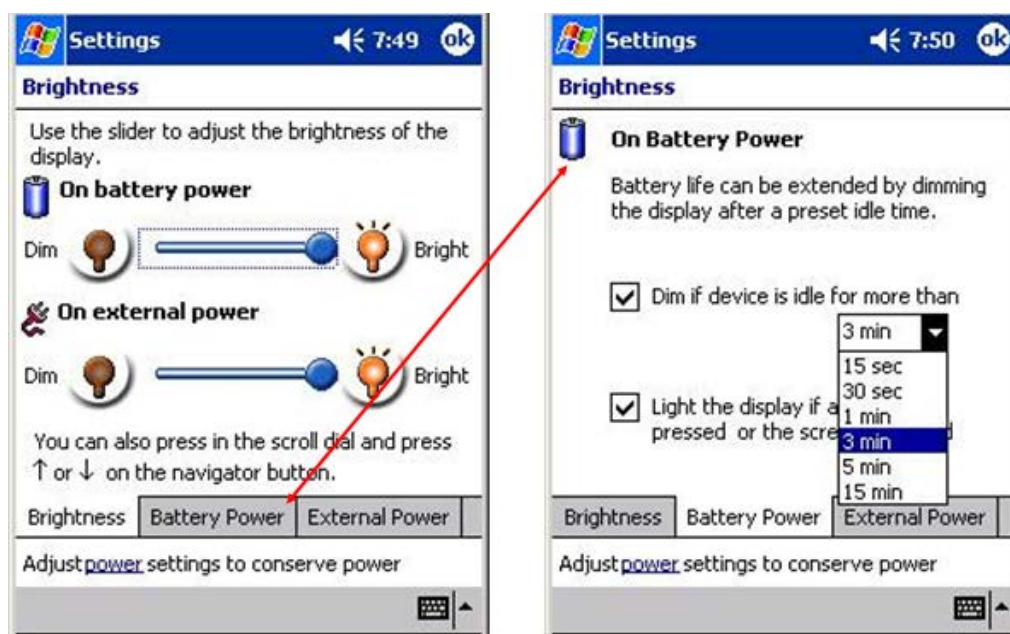


Screen brightness can be adjusted to conserve battery power, although this can be problematic. In the field, if you dim the screen, you won't be able to see well enough to do your work. You can, however, have the screen dim after a period of time, thus saving some of the battery power during periods of non-use.

Note: most PDR screens are “backlit” to make the details of the screen more visible. This works great while inside, but in sunlight you will notice that the back lighting is cancelled by the sunlight. Shading the PDR screen will sometimes help and sometimes holding it in full light works better.

You can get to the **Screen Brightness** settings from the Power Control screen or by tapping: **Start -> Settings -> System -> Brightness -> Battery Power**.

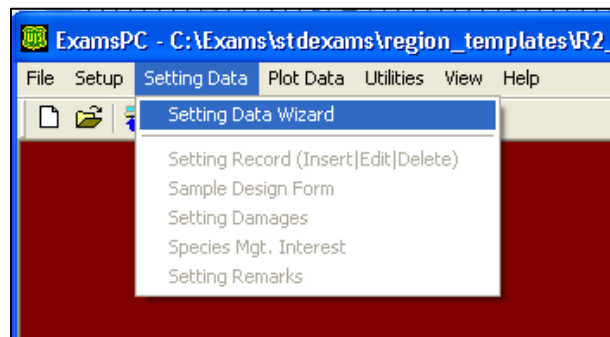
Figure 73: Settings | Battery Power | Brightness



Here you can adjust the amount of time the device can be idle before the screen dims.

SETTING DATA

Figure 74: ExamsPC Setting Data drop-down menu



The Setting Data Wizard allows you to insert new setting information or edit certain portions of existing setting information. All data will be saved into the .cse file that is currently opened.

[illegible]

FSVeg Common Stand Exam User Guide

The buttons along the bottom of the screen are outlined below:

Figure 76: Help button, describes the column headings

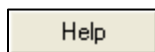


Figure 77: Back button, inactive in this window

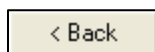


Figure 78: Next button, takes you to the Sample Design form(s)

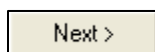


Figure 79: Cancel button, any modifications since window was opened will not be saved

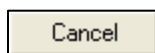


Figure 80: Save button, inactive from this window once you've saved your data

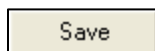
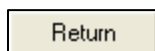


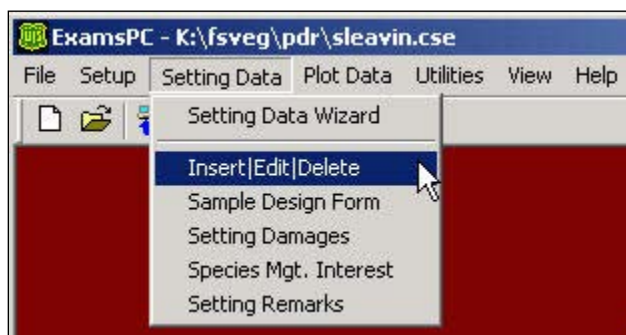
Figure 81: Return button, takes you back to the main menu



Using Insert/Edit/Delete in Setting Data

Using Setting Data in the main window, the Insert/Edit/Delete options allows you to insert new setting data in the Setting form, edit existing Setting form data for a particular setting, or delete setting data records.

Figure 82: ExamsPC Setting Data drop-down menu



To enter a new setting, select **Insert**. To edit data for an existing setting, highlight the setting and select **Edit**. To delete a setting and all associated data from the opened .cse file, highlight the setting, and then select **Delete**.

Figure 83: Insert / Edit / Delete form

[illegible]

Edit the Setting Data

Any defaults that are contained in the **.cse** file will be entered automatically. To move between fields, use the tab key. Once you have finished entering setting data, select **Save** to return to the Insert/View form.

Figure 84: Setting Record form

Setting Record

Setting ID

*ProcReg [01] *ProcFor [02] *District [04] *Location [123456789] *Stand ID [9999] Meas. Num. [1]

General Setting Data

*AdReg [01] *AdFor [] *Project Name [INVENTORY_MONITORING] *Owner [USFS] State [] County []

Date [07/14/2011] PhotoID [] *Exam Level [3421] ExPur [JM] Strata []

ExVRf. [] ExVeg [] PVRf. [] PVeg [] Struc [] CapGr% [] FuM []

Elev [] Aspect [] Slp [] SIPos [] Acres [] Examiner []

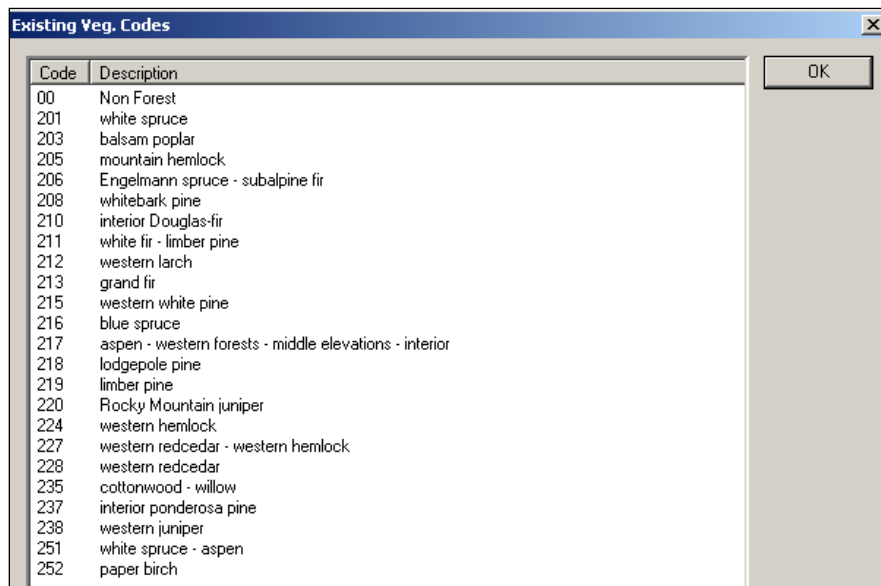
Prec. Protocol [CSE] RaG1 [10] RaG2 [] HtG [5] Fuel Phot. Ref. [] User Defined Code []

Lat.-Long. Reference Datum [NAD83]

Options Exam Purpose Code Save | Exit

If the Options button is selected while in a field, a drop-down list of valid values and definitions is displayed.

Figure 85: Existing Veg Codes form



The dialog box titled "Existing Veg. Codes" contains a table with two columns: "Code" and "Description". The table lists various vegetation codes and their corresponding descriptions. An "OK" button is located in the top right corner of the dialog box.

Code	Description
00	Non Forest
201	white spruce
203	balsam poplar
205	mountain hemlock
206	Engelmann spruce - subalpine fir
208	whitebark pine
210	interior Douglas-fir
211	white fir - limber pine
212	western larch
213	grand fir
215	western white pine
216	blue spruce
217	aspen - western forests - middle elevations - interior
218	lodgepole pine
219	limber pine
220	Rocky Mountain juniper
224	western hemlock
227	western redcedar - western hemlock
228	western redcedar
235	cottonwood - willow
237	interior ponderosa pine
238	western juniper
251	white spruce - aspen
252	paper birch

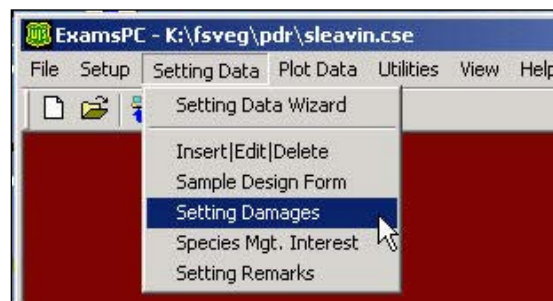
Once a valid code is highlighted, the screen closes and the valid code is inserted in the field. If the X in the upper right corner or OK is selected, the form closes with no value chosen for the field.

Once all of the data has been entered, select Save to return to the main setting screen.

Editing the Setting Damages

From the main menu, choose **Setting Data -> Setting Damages**.

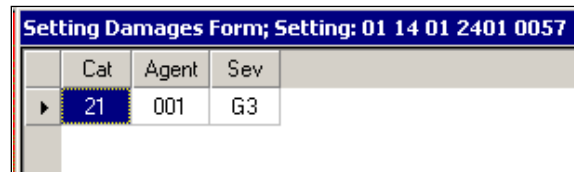
Figure 86: Setting Data | Setting Damages



A screen of all settings currently saved under the open **.cse** file is shown. Select **Insert** from the screen and the setting form will be displayed. If an existing setting is highlighted, select **Next** to bring up the Setting Damages form.

Use the down arrow to access a new, blank line of setting damage data.

Figure 87: Setting Damages form



The screenshot shows a window titled "Setting Damages Form; Setting: 01 14 01 2401 0057". It contains a table with three columns: "Cat", "Agent", and "Sev". The first row has values "21", "001", and "G3". A small arrow icon is to the left of the "21" in the "Cat" column.

Cat	Agent	Sev
21	001	G3

The buttons along the bottom of the screen have the following functions:

Figure 88: Help button, produces a pull-down list of valid codes and definitions for the current field

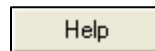


Figure 89: Back button, saves changes and returns to the previous screen to select a new setting

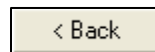


Figure 90: Cancel button, deletes changes made since entering form; return to main menu; warning message is displayed

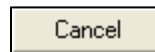


Figure 91: Save button, saves all changes

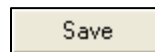
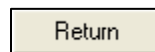


Figure 92: Return button, once data has been saved, returns to the main menu



Editing the Setting Species of Management Interest

In the Species of Management Interest form, use the down-arrow to access a new, blank line of setting species of management interest.

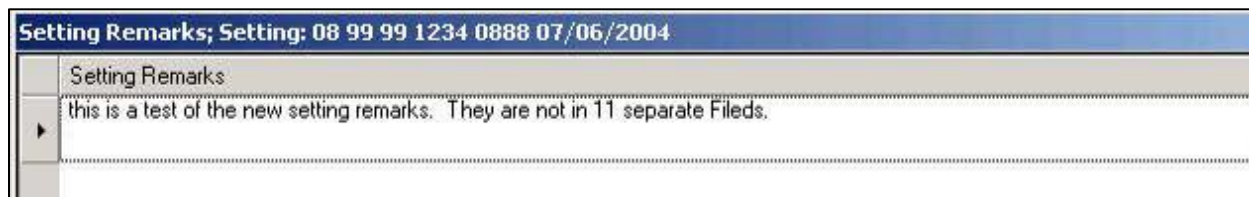
Figure 93: ExamsPC Setting Data drop-down menu



Editing the Setting Remarks

Enter remarks related to the setting. All text will be converted to upper case.

Figure 94: Setting Remarks

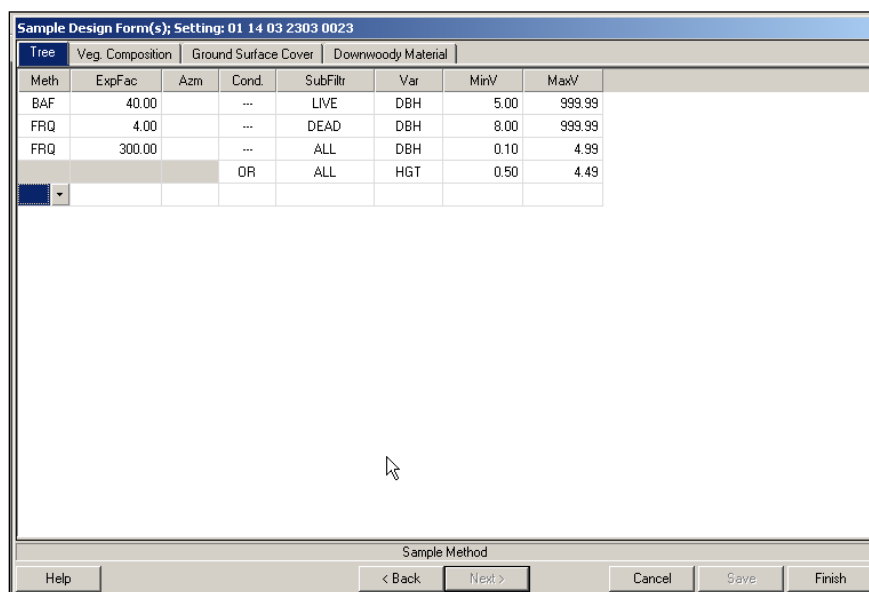


The screenshot shows a dialog box titled "Setting Remarks; Setting: 08 99 99 1234 0888 07/06/2004". It contains a text area with the text "this is a test of the new setting remarks. They are not in 11 separate Fileds." and a small arrow icon on the left side of the text area.

Editing the Sample Design

The top of the sample design screen contains tabs to access the sample design data for the Tree, Vegetation, Surface Cover, and Down Woody Material forms.

Figure 95: Sample Design Form



The screenshot shows a dialog box titled "Sample Design Form(s); Setting: 01 14 03 2303 0023". It has four tabs: "Tree", "Veg. Composition", "Ground Surface Cover", and "Downwoody Material". The "Tree" tab is selected, showing a table with the following data:

Meth	ExpFac	Azm	Cond.	SubFiltr	Var	MinV	MaxV
BAF	40.00		...	LIVE	DBH	5.00	999.99
FRQ	4.00		...	DEAD	DBH	8.00	999.99
FRQ	300.00		...	ALL	DBH	0.10	4.99
			DR	ALL	HGT	0.50	4.49

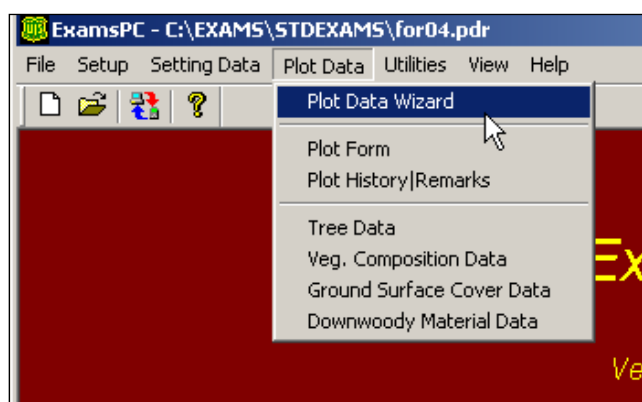
Below the table is a large empty area. At the bottom, there is a "Sample Method" section with buttons: "Help", "< Back", "Next >", "Cancel", "Save", and "Finish".

PLOT DATA

Plot Data Wizard

The plot data wizard cycles through the Plot, Tree, Vegetation Composition, Surface Cover, and Down Woody Data forms for a specific plot.

Figure 96: ExamsPC Plot Data drop-down menu



The Next and Back buttons allow you to move from one form to the next.

Plot Form

From the main menu, select **Plot Data / Plot Form**. Highlight the appropriate setting them select **Next** at the bottom of the screen.

Figure 97: Plot Data for Setting form

Plot #	*ASP	*Slp%	PotVeg
1	155	30	692
2	180	24	692
3	180	18	692
4	180	32	692
5	160	20	692
6	160	20	692
7	160	20	692
8	160	26	692
9	160	20	692
10 >>	170	35	692

Aspect (0 = Flat); Field 5 (Required)

As the down arrow is used to highlight new rows of plot data, the plot number column increments by one. Only the plot data fields, dependent upon exam level and Regional protocol, will be displayed on this screen.

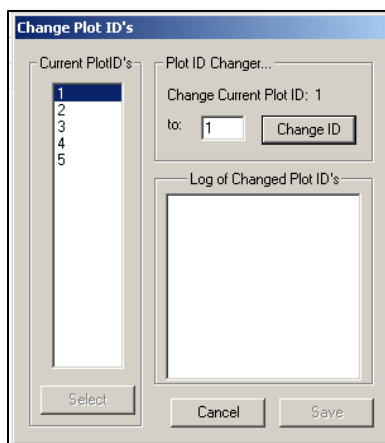
The buttons along the bottom of the Plot form screen have the following functions:

Figure 98: Help button



Selecting Change Plot IDs from the Options button helps if you do not start at plot #1 and you jump around the plot numbers you collect, as show in [Figure 98](#).

Figure 99: Change Plot IDs form

The dialog box is titled "Change Plot ID's". It features a list box on the left labeled "Current PlotID's" containing the numbers 1 through 5, with "1" selected. To the right of this list is a section titled "Plot ID Changer..." which includes the text "Change Current Plot ID: 1" and a "to:" label followed by a text input field containing "1" and a "Change ID" button. Below these elements is a large empty rectangular area labeled "Log of Changed Plot ID's". At the bottom of the dialog are three buttons: "Select", "Cancel", and "Save".

Using Insert Plot from the Options menu inserts a plot after the last plot. The down arrow or Insert key on your keyboard has the same functionality.

The Delete Plot option deletes the active plot. The Delete key on your keyboard has the same functionality.

The Sample Design by Plot option allows you to select which parts of the sample design are installed on each plot.

The Adjust Slope Plot Radius optional form calculates the fixed-plot radius adjusted for slope. The corrected radius is provided in the field **SIStrA**, as shown in [Figure 99](#).

Figure 100: Adjust Slope Plot Radius form

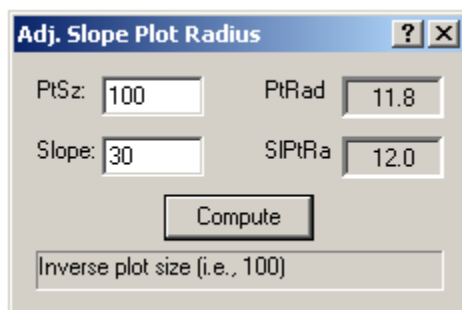
The dialog box is titled "Adj. Slope Plot Radius" and has standard window controls (minimize, maximize, close) in the top right corner. It contains four input fields arranged in a 2x2 grid: "PtSz:" with value "100", "PtRad:" with value "11.8", "Slope:" with value "30", and "SIPtRa:" with value "12.0". Below these fields is a "Compute" button. At the bottom of the dialog is a text field containing the text "Inverse plot size (i.e., 100)".

Figure 101: Back button, return to Setting ID form

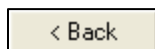
A rectangular button with a light gray background and a thin black border, containing the text "< Back".

Figure 102: Cancel button, delete all changes, return to main menu; a warning message is displayed

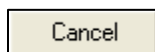
A rectangular button with a light gray background and a thin black border, containing the text "Cancel".

Figure 103: Save button, save all changes and remain in plot form

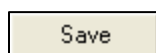
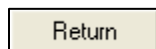


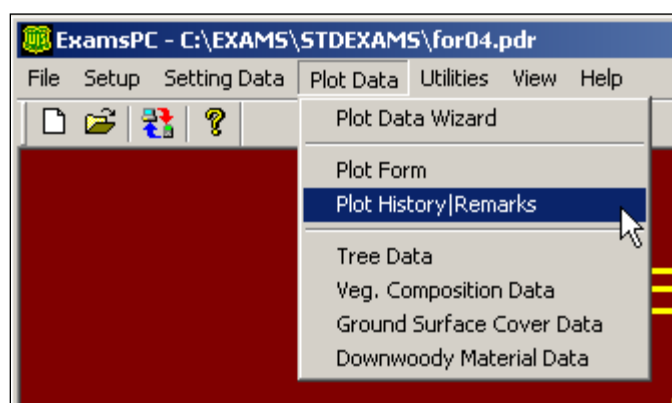
Figure 104: Return button, return to main menu



Plot History and Plot Remarks

From the main menu, select Plot Data -> Plot History/Remarks.

Figure 105: ExamsPC Plot Data drop-down menu



Select the setting ID and plot number for the plot history and remarks. Then select the **Next** button at the bottom of the screen.

Figure 106: Plot History/Remarks form

Reg	PF	RD	Location	Stand
01	10	04	0103	0001
01	14	01	2305	0006
01	14	01	2401	0046
01	14	01	2401	0047
01	14	01	2401	0056
01	14	01	2401	0057
01	14	01	2401	0059
01	14	01	2401	0063
01	14	01	2401	0064
01	14	01	2401	0070
01	14	01	2401	0200

Click on Plot

- Plot #1
- Plot #2
- Plot #3
- Plot #4
- Plot #5
- Plot #6
- Plot #7
- Plot #8
- Plot #9
- Plot #10

Enter the plot history and plot history year. Use the down arrow to access a new line of data.

Enter the plot remarks, up to 242 characters. The remarks will be changed to all upper case letters.

Figure 107: Plot History/Remarks form

History	Year
06	1987

Plot Remarks
This is a test of the new plot remarks. Cool

The buttons along the bottom of the Plot History/Plot Remarks screen have the following functions:

Figure 108: Help button, displays information about the activated field, displays a list of valid codes and definitions



Figure 109: Back button, saves information, returns to screen to select another setting and return to Plot Data form

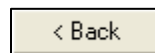


Figure 110: Cancel button, delete all changes since last save, return to main menu, a warning message is displayed

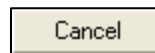


Figure 111: Save button, save all changes, remain in plot form

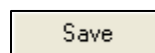
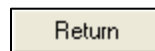


Figure 112: Return button, return to the main menu



TREE DATA

Tree Data Form

From the main menu, select **Plot Data** -> **Tree Data**. Only the settings that specified that tree data will be collected (a 1, 2, or 3 in the exam level on the Setting form) will show up for selection. Select the Setting ID and plot number to start collecting tree data. Then select **Next** at the bottom of the screen.

Figure 113: Tree Data Setting form

Tag#	Species	Diam.	T	S	Species	TCr	HDBHDRC	Hgt	#RaG1	#HgtG	Age	#CRat	CC
1	PICO	7.2	L	G	PICO	1	7.2	55	4		97	50	CO
2	PSME		L	G	PSME	1		1		0.4	15	90	IN
> 3	PICO	9.0	D		PICO	7	9.0	65					

To insert a new line of tree data, use the down arrow. The tag ID will automatically increment. The tag ID, species, and diameter of each tree will be placed on the left-hand part of the screen and frozen. The right-hand section of the screen can be scrolled to access other data fields. Only the tree data fields selected in the template .cse file will be displayed on this screen. Refer to the Tree Data section of the intensity of the exam you are taking for information about tree data collection. A down arrow to the left of all fields will display valid codes.

The buttons along the bottom of the Tree form have the following functions:

Figure 114: Help button, displays valid codes and definitions for activated field

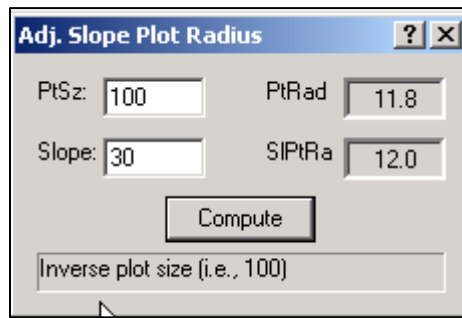


The In/Out option provides a calculator to determine if a tree is IN or OUT of a plot, based on BAF, tree DBH, slope, and distance to the tree, as shown in [Figure 114](#).

Figure 115: In/Out Tree Form

The Adjusted Slope Plot Radius option provides a calculator to determine the adjusted slope plot radius. Enter the inverse of the plot size such as a 10 for 1/10th acre plot. Enter the slope, in percent. Select the **Compute** button. The computed **PtRad** field contains the plot radius without a slope correction, and the **SIPtRa** field contains the plot radius with a slope correction.

Figure 116: Adjust Slope Plot Radius window



The window titled "Adj. Slope Plot Radius" contains four input fields: "PtSz" with value 100, "PtRad" with value 11.8, "Slope" with value 30, and "SlPtRa" with value 12.0. Below these fields is a "Compute" button. At the bottom, there is a text box containing the text "Inverse plot size (i.e., 100)".

The Sample Design option displays the Sample Design for Tree Data, as shown in [Figure 116](#).

Figure 117: View Sample Design

View Sample Design						
Meth	ExpFac	Cond.	SubFiltr	Var	MinV	MaxV
BAF	40.00	---	LIVE	DBH	5.00	999.99
FRQ	4.00	---	DEAD	DBH	8.00	999.99
FRQ	300.00	---	ALL	DBH	0.10	4.99
		OR	ALL	HGT	0.50	4.49

The Damage Form option is another way to access the damage form to enter damages for the current tree. Use the down arrow on your keyboard to enter a new line of damaged data.

The Insert Record option inserts a new tree record below the line that the cursor is positioned at. The Insert key on your keyboard has the same functionality.

The Delete Record option deletes the tree record that the cursor is currently positioned at. The Delete key has this same functionality.

Figure 118: Back button, deletes all changes, returns to main menu, a warning message is displayed

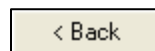


Figure 119: Save button, save all changes, remain in Tree form

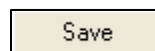
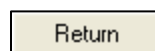


Figure 120: Return button, save must be executed before this button is activated, returns to main menu



Tree Damage Form

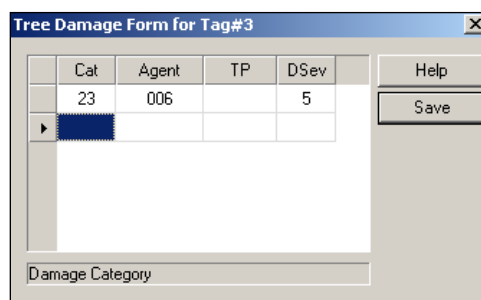
Tree damages are entered from the field labeled **D**. This field has a pull-down menu called **Form** that will access the Tree Damage form.

Figure 121: Tree Damage form

Tree; 01140124010046 0002								
Tag#	Species	Diam.	Age	CRat	CC	D	LD	Tree Remarks
> 1	LADC	0.6	6	70	CO			TC2
2	PICO	2.8	10	80	CO	Form		TC2
3	PICO	1.1	9	70	CO			TC2

Help will access the codes and descriptions for the tree damage fields. **Save** will save the data and returns to the Tree form. **ESC** will cancel all edits and return to the tree form.

Figure 122: Tree Damage form



Cat	Agent	TP	DSev
23	006		5

Damage Category

Help Save

VEGETATION COMPOSITION AND SURFACE COVER DATA

From the main menu, select **Plot Data -> Veg. Composition -> Ground Surface Cover Data**.

Only settings that specified vegetation data would be collected on the exam level will show up for selection. Select the setting ID and plot number for the plot to enter/edit vegetation data and select **Next**.

Figure 123: Veg Composition form

Proc. Reg.	Proc. For.	District	Location Code	Stand No.	Date
01	02	01	123456789	1111	11/30/2004

Plot ID	Plot #1

Click Next to continue...

Help < Back Next > Cancel Save Return

Vegetation Composition Data

To insert a new line of cover data, use the down arrow. Only the vegetation data fields selected in the set up will be displayed on this screen.

Figure 124: Cover by lifeform

LifeForm	Layer	Code	Cvr%	Hgt	Diam	UseF	Remarks
Total Veg.	TV		10				
Trees	TOT		20				
	Hgt >= 6.1 ft	TOV	30				
	Hgt < 6.1 ft	TSA	40				
Shrubs	TOS		50				
	Hgt >= 6.1 ft	ST	60				
	1.6 ft <= Hgt <= 6.0 ft	SM	70				
	Hgt < 1.6 ft	SL	80				
Forbs	TOF		90				
Graminoids	TOG		100				
Herbs	TOH						
Algae	TAL						
Lichen	TLC						
Fungus	TFU						
Woody Liana	TLJ						
Woody Subshrub	TSS						
Herb. Vine	TVI						
Nonvasc. Plant	TNP						
Unknown	TIIN						

Total Vegetation (TV): Canopy Cover (%) (Required)

Help Options < Back Next > Cancel Save Return

Figure 125: Cover by Species and Layer

Veg. Composition; Setting: 0102011234567891111_11/30/2004 Plot: 0001

Cover by Lifeform | **Cover by Species and Layer** | Cover by Species | Ground Surface Cover

Life Form	Layer	Code	*Species	*Cvr%	Hgt	Diam	Age	Maturity	Shrub Form	Use
Trees	>= 6.1 ft	DV		0.0						
	"	DV		0.0						
	"	DV		0.0						
	< 6.1 ft	RE		0.0						
	"	RE		0.0						
	"	RE		0.0						
Shrubs	>= 6.1 ft	ST		0.0						
	"	ST		0.0						
	"	ST		0.0						
	1.6 - 6.0 ft	SM		0.0						
	"	SM		0.0						
	"	SM		0.0						
	< 1.6 ft	SL		0.0						
	"	SL		0.0						
	"	SL		0.0						

Trees >= 6.1 ft.: Canopy Cover (%) (Required)

Help Options < Back Next > Cancel Save Return

Figure 126: Cover by species

Veg. Composition; Setting: 0102011234567891111_11/30/2004 Plot: 0001

Cover by Lifeform | Cover by Species and Layer | **Cover by Species** | Ground Surface Cover

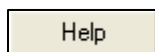
*LF	*Species	*Cvr%	*UseF	Remarks

Lifeform Code (Required)

Help Options < Back Next > Cancel Save Return

The buttons along the bottom of the Tree form have the following functions:

Figure 127: Help button, explanation of valid codes for each field



Sample Designs under Options displays the Sample Design for Tree Data, as shown in [Figure 127](#).

Figure 128: View Sample Design form

View Sample Design						
Meth	ExpFac	Cond.	SubFiltr	Var	MinV	MaxV
BAF	40.00	---	LIVE	DBH	5.00	999.99
FRQ	4.00	---	DEAD	DBH	8.00	999.99
FRQ	300.00	---	ALL	DBH	0.10	4.99
		OR	ALL	HGT	0.50	4.49

Using the Insert Record selection under Options inserts a new tree record below the line that the cursor is positioned at. The Insert key on your keyboard has this same functionality.

The Delete Record choice under Options deletes the tree record that the cursor is currently positioned at. The Delete key on your keyboard has this same functionality.

Figure 129: Back button, return to the previous screen to select another setting ID or plot number and return to the Vegetation form

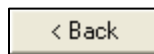


Figure 130: Cancel button, cancels all changes, returns to main menu; a warning message is displayed

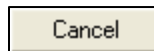
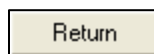


Figure 131: Save button, saves all changes, remain in Vegetation form



Figure 132: Return button, if changes have been made, Save must be selected first, returns to main menu



Surface Cover Data

From the main menu select **Plot Data -> Veg. Composition|Ground Surface Cover Data**.

Only the setting that specified that surface cover data will be collected on the exam level in the Setting form will show up for selection. Select the setting ID and plot number to enter/edit surface cover data and select **Next** at the bottom of the screen.

Figure 133: Sfc. Data form

Reg	PF	RD	Location	Stand
01	10	04	0103	0001
01	14	01	2305	0006
01	14	01	2401	0046
01	14	01	2401	0047
01	14	01	2401	0056
01	14	01	2401	0057
01	14	01	2401	0059
01	14	01	2401	0063
01	14	01	2401	0064
01	14	01	2401	0070
01	14	01	2401	0200

Plot ID

- Plot #1
- Plot #2
- Plot #3
- Plot #4**
- Plot #5
- Plot #6
- Plot #7
- Plot #8
- Plot #9
- Plot #10

Figure 134: Veg Composition Setting form, Ground Surface Cover tab

Surface Cover Code (Required)

Help Options < Back Next > Cancel Save Return

DOWN WOODY DATA

From the main menu, select **Plot Data -> Down Woody Material Data**.

Only the settings that specified that down woody data will be collected on the exam level of the Setting form, will show up for selection. Select the setting ID and plot number to enter/edit down woody data and select Next at the bottom of the exam.

Figure 135: Fuel Data form

Proc. Region	Proc. Forest	District No.	Location Code	Stand No.
01	14	03	2303	0023
01	14	03	2304	0029
01	14	03	4202	0027

Plot ID

- Plot #1**
- Plot #2
- Plot #3
- Plot #4
- Plot #5

To insert a new line of data, use the down arrow. Notice that only one line of information is available for the duff and twig measurements, but many lines are available for the 3-inch plus diameter pieces. Also note that until twig measurements have been collected or a down arrow is pressed, the data collection line for the 3" plus diameter pieces is not displayed.

Figure 136: Downwoody Material Data form

Downwoody Material Data; Setting: 01140342020027 Plot: 0001												
	Duf1	Duf2	FuD	Twg1	Twg2	Twg3	Cnt	Dec	Diam	Len	Small	Large
▶	1.0	0.8	3.0									
							2	3	10.0	50.0		
							2	4	10.0	50.0		

WITNESS TREE/NAVIGATION

From the main Inventory and Monitoring menu, select **Plot Data -> Witness Tree -> Navigation**.

Figure 137: Witness Tree | Navigation form

Witness Tree | Navigation

Click on Setting

Proc. Reg.	Proc. For.	District	Location Code	Stand No.	Date
01	02	04	123456789	9999	07/14/2011

Click on Plot

Plot ID
Plot #1
Plot #2
Plot #3
Plot #4
Plot #5

Click Next to continue...

Help

< Back

Next >

Cancel

Save

Return

When you click on a plot number, the following screen automatically displays:

Figure 138: Witness Tree | Navigation form

Witness Tree | Navigation; Setting: 0102041234567899999_07/14/2011 Plot: 0001

☐ Witness Tree Information

*Mon. Type	*Wit. Type	TagID	Species	DBHIDRC	Diam.	*Azm	*Dist.	Remarks	Travel

☐ Navigation Information (from last Plot)

*Plot Navigated From	
*Azimuth from Navigation Plot	
*Distance from Navigation Plot	

Click on Witness Tree Information -or- Navigation Information

In this screen, click on either the **Witness Tree Information** or **Navigation Information** radio button, and enter the corresponding data. Required fields are marked with an asterisk (*). Then click the **Save** button. When you are finished, click on **Return** to go back to the main screen.

BEFORE YOU HEAD TO THE FIELD

EQUIPMENT CHECK

- Turn on PDR to ensure it's working
- PDR battery fully charged
- PDR back up batteries fully charged
- Stylus (have a spare with you)
- Ruggedized case for non-ruggedized PDRs
- GPS users: receiver fully charged and operational
- Charging device (car charger, solar charger, etc.) for batteries

APPLICATIONS/DATA FILES

1. Turn on PDR
2. Is ExamsPDR loaded in PDR? (each PDR has ExamsPDR loaded differently, consult the [Common Stand Exam Users Guide – Chapter 3](#))
3. Launch (tap) ExamsPDR
4. Tap **File** -> **Open**
5. Ensure that your project file is loaded on the PDR (in the **Open** list displayed)
6. Tap your Project file to ensure it opens successfully. You should see the Project file name (Current Name) displayed on the ExamsPDR main screen.
7. Tap **Setup** -> **User Definitions**
8. Tap several of the items in the **List of Attributes** field and verify that there are values for each attribute and verify that the appropriate **Defaults** have been set. Tap **Return** to go back to the List of Attributes or **Save | Return** if you've made any changes to the attributes.
9. Tap **Finish** to return to the ExamsPDR main screen
10. If data has been previously entered for this project, check to see that the data exists in this project file
 - a. Tap **Plot** -> **Tree Data** (if tree data were collected)
 - b. Tap on a **Setting ID** then tap on a **Plot ID**
 - c. Verify that data exists in this file on the Tree Data form
 - d. Tap **Finish** to return to the ExamsPDR main screen
11. You can now be confident that you have the **Applications** and **Data Files** you need to do your job in the field
12. Tap **File** -> **Exit**
13. Turn **Off** your PDR

REGION- AND/OR FOREST-SPECIFIC INSTALLATION INFORMATION
