

# LMS Inventory Wizard

By Kevin Zobrist

The Inventory Wizard is a tool that makes it easy to get started with the Landscape Management System (LMS). LMS is a free software package that integrates forest growth, visualization, and spatial models in a user-friendly environment. LMS enables landowners to simulate management alternatives for their forest and evaluate projected outcomes through tables, charts, and computer-rendered images. The Inventory Wizard guides users through the process of assembling the forest inventory data needed to run LMS. Inventory wizard automatically formats this information and loads it into LMS so that users can immediately begin using the system.



# **Getting Started**

The Inventory Wizard guides users through the entire process of preparing data for use in LMS. The first step in using the Inventory Wizard is to run the Growth Model Selection Guide. LMS includes



Figure 1: Inventory Wizard Main Menu

Wizard is to run the Growth Model Selection Guide. LMS includes several different tree growth models, with variants covering different regions throughout the U.S. The Growth Model Selection Guide asks a series of geographic location questions and then recommends the growth model(s) and variant(s) that are likely to produce good results.

Once a growth model and variant have been selected, the Inventory Wizard provides the appropriate forms for collecting inventory data in the field. Separate forms are provided for stand-level information (e.g. acreage and site index) and plot-level information (e.g. plot size and tree measurements). Items on the field inventory forms are separated into three categories: required (the minimum information needed for LMS to run), recommended (necessary to get realistic results from the growth model), and optional (can be used to further calibrate the growth model or for the user's records). This helps clarify what information is needed and allows an informed decision about how much data to collect in the field. All of the field inventory forms are in pdf format, and users can print out as many copies as they need. The forms can even be printed on waterproof paper to create weatherresistant plot cards.

### **Entering Data**

Once users have their inventory data ready, either by gathering existing data or by collecting new data using the field inventory forms, the data can be entered into the Inventory Wizard through a

series of on-screen forms such as the one shown in Figure 2. The on-screen forms have a layout similar to the field inventory forms, which makes the data entry process simple and straight-forward. Users can position the mouse above any field or button on the form, and a brief explanation and instructions for

use will appear. The same message will also appear at the bottom of the screen when a field is selected. The Inventory Wizard makes sure that all required fields are filled in, and if it detects missing or invalid information it will guide the user in correcting the problem. Special fields such as species and location provide a drop-down list of choices recognized by the selected growth model. Selections are then automatically converted the to alphanumeric code used by LMS.

Data entry starts with stand-level information. Once stand information is entered, plots can be added. The Figure 2: Inventory Wizard data entry form Inventory Wizard is versatile and can

Required Data: Hot Type: Basid Area Factor (BAP):   Investory Your: Tree Records   Stand areage: Spacies   DBH Height Crown Age Stag Downed Decay   Stand Star Index: Spacies   Stand Star Index: Space   Stard Star Index: Space   Stard Star Index: Space   Stard Star Index: Space   Stard Star Index: Space	1 Decay Count 1		and and another second	11001000.0
	8 Decay Court	PIOL P	ypo: Basal A	rea Factor (BAF):
Stand screege: Spacies DBH Height Crown Age Snag Downed Deca Recommended Datas Location: Stand State Index: Stand State Index: State Index:	I Decay Count	y war: Tree	Records	
Recommended Data: Location: Stand Stile Index: profile Silver Dages for namo matrixit Type, Plant Association: Bervation: Detrional Data: Age: Aspect: Slope:		oreage:	Species DBH Height Cro	wn Age Snag Downed Decay Count
Location: Stand Strike Index : Inright Skywe Deuglee fin name) Habitat Type, Plant Association: Bevation: Diptional Dates: Ige: Aspect: Slope:		mended Data:		U U 1
Stand Stele Endes:		u.		
Stand She Index : Index Type, Flant Association: Bevallon: Deficienal Data: set Aspect: Stope:		2		
Several Designer's math) Habitat Trype, Flant Association: Severator: Deptioned Data: Sge: Aspect: Stope:		de Index :		
Bevator: Deta: Spiinal Data: Spiinal Data:		-year Douglas-fir Index)		
Bevator: Diptional Data: 292: Aspect: Slope:		Type/Part Robot and T		
Optional Data: loge: Aspect: Stope:				
ige Aspect Stope:		val Data:		
		Aspect: Slope:		
Additional Site Index (es):		al Site Index(es):		
Species. Index.		Species: Index		

accommodate almost any plot sampling design, including fixed plots of any size, variable radius plots, and transect (i.e. line intercept) sampling for downed logs. Up to five nested subplots can be accommodated for any given sampling point. Once plot information is entered, trees can be added. Per acre expansion factors are automatically calculated based on the plot type, size, and total number of plots.

### **Portfolio Management**

The Inventory Wizard can store an unlimited number of LMS datasets, which are known as portfolios. The Inventory Wizard makes it easy to manage portfolio data, including adding, deleting, duplicating, or modifying portfolios. When all the data for a portfolio has been entered, the Inventory Wizard will build the LMS data files in one step. The portfolio is then ready for use in LMS.

# **Getting the Inventory Wizard**

Both the Inventory Wizard and the LMS program itself are available for free download. Free CD-ROMs are also available from RTI upon request. The Inventory Wizard works on computers running Microsoft Windows 98 or later. Microsoft Access 2000 or later is also required. For computers not running Access 2000 or later, free runtime components will be installed to allow full use of the Inventory Wizard. A tutorial is included that covers every aspect of the program in detail.

Download the Inventory Wizard: http://lms.cfr.washington.edu/lmsinywizard.html

Download the LMS program: http://lms.cfr.washington.edu/lmsdownload.php

Contacts: For more information visit the RTI website at www.ruraltech.org or contact Kevin Zobrist, Rural Technology Initiative, University of Washington (206) 543-0827.



University of Washington College of Forest Resources





USDA-FS **Cooperative Forestry**