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STRATUM Quick Start Guide
For versions 2.0 and older

Introduction

The i-Tree User's Manual is quite extensive and can be cumbersome to navigate, especially for first-time users. This guide is designed to help those who are new to i-Tree to easily set up and implement an inventory project using the STRATUM software application. In this guide, section numbers in parentheses refer to where you can find more information about that particular topic in the i-Tree User's Manual. This guide is not intended to take the place of the i-Tree User's Manual, but, rather, used as a companion "quick-start" guide to establishing a STRATUM project.

STRATUM: steps to get started

1. What is the objective of your inventory?

When starting a project, you need to understand why you are doing an inventory. The first step in the inventory process is establishing its goals and objectives. Such considerations include risk management, species and age diversity, planting site locations, and tree maintenance needs. STRATUM is designed to analyze forest structure as well as provide a benefit-cost analysis of your street trees. Knowing the objectives of the inventory will help to determine what data to collect and necessary steps in setting up the i-Tree data collection program (or data sheet).

2. What type of inventory do you want to conduct?

STRATUM was designed to be flexible and can facilitate analyses of three inventory types:

     I. Sample inventory (Sec. 2.7.2)
    II. Complete inventory (Appendix D)
   III. Import existing inventory (Appendix D)

Collecting inventory data is time consuming and can be expensive. Determine how large of an area will be inventoried and approximate the number of trees that will be included in that area. Figure about one minute per tree to collect the necessary data (if collecting all fields of data that STRATUM offers). If the area is too large to efficiently inventory, you may want to consider doing a sample inventory which allows you to inventory all trees on a limited number of street segments. The data are then extrapolated out to provide a good idea about the trees in the entire area. Although this reduces the amount of time needed to do an inventory, it introduces sampling error. STRATUM does have the ability to analyze existing inventory data, but it must be in the STRATUM format in a Microsoft Access database.

3. How do you want to collect the data?

-     Paper data sheets
-     i-Tree supported Personal Digital Assistant (Pocket PC)
-     Non-supported portable equipment

STRATUM is designed to be used with a personal digital assistant (PDA). However, not everyone has this type of Pocket PC-based hardware. Although data collected on a PDA can be quite efficient, technology can be frustrating to those unfamiliar with its functionality. You can create your own data sheets and enter data into a spreadsheet, thus treating the data as an existing inventory. In the same way, you can collect data using portable equipment such as a GPS unit or a field computer that has spreadsheet capabilities. It doesn't matter how field data are collected, as long as they are formatted according to specifications found in Appendix D.

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4. Install software
If not already done, install the STRATUM software from the disk (Sec. 2.2.1, 2.2.2, and 2.2.3). If you plan to use a supported PDA to collect your data, install the STRATUM/MCTI PDA Utility (Sec. 3.2.1). Allowing the software to install to its default location is highly recommended.

5. Review STRATUM data field defaults
If you plan to import an existing inventory, your data fields must be formatted exactly as they appear in Appendix D. Spelling and order must match precisely. STRATUM requires that species, DBH, and a unique number be entered for each tree as the minimum for you to run a STRATUM project. Even if you do not plan to use all 17 fields of data, they must appear in the data set. If a field will not be used, make sure its data cell is populated with the appropriate null value. After determining which fields of data you will collect, you may use the field default values or you can change them within the limits outlined in Appendix D.

If you are using a PDA, you can change data field values using the STRATUM/MCTI PDA Utility configuration (Sec. 3.2.1).

6. Collect field data
After designing and setting up your inventory format, you are ready to collect your data. If you are using a PDA, all of the set up is facilitated through the PDA utility. You will simply need to follow the instructions in Sec. 3.2.1. If you are importing an existing inventory, it may be a good idea to save your data into a Microsoft Excel spreadsheet and export it into an Access data base after all data are collected as outlined in Appendix D. Make sure that no blank data cells are present in your data set and your field headings are spelled properly and in the proper order.

7. Create a new STRATUM project (Sec. 2.3 and 2.4)
After collecting your data, making sure the data are in the proper order without voids in the data set, and the data are in a Microsoft Access file, you are ready to import your data and define the project. Create a new project per Sec. 2.3.2. You will then want to define your city, costs, and benefit prices per Sec. 2.4.1. You may have used several species codes with which STRATUM is not familiar, so you will need to define those species per Sec. 2.4.2. If you did not use STRATUM default values, you have the opportunity to customize the data criteria in your data fields per Sec. 2.4.3.

8. Generate STRATUM reports (Sec. 2.5)
Reports estimating benefits, costs, structural analysis, and replacement values can be easily generated and used to develop a comprehensive management plan for your community forest.

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STRATUM Quick Start Guide Checklist

☐ Determine the objective of your inventory
  risk assessment
  species and age diversity
  planting space locations
  tree maintenance needs
  other

☐ Determine the type of inventory to conduct
  sample inventory
  complete inventory
  import existing inventory

☐ Determine the method of data collection
  paper data sheets
  i-Tree supported PDA
  non-supported portable equipment

☐ Install STRATUM from i-Tree CD (i-Tree Software Suite User's Manual Section 2.2)

☐ Install STRATUM/MCTI PDA Utility (Section 3.2.1)

☐ Review STRATUM data field defaults
  for i-Tree supported PDA, follow STRATUM/MCTI PDA Utility configuration (Section 3.2.1)
  for paper data sheets and importing existing inventory, follow Appendix D

☐ Collect field data
  for i-Tree supported PDA, follow STRATUM/MCTI PDA Utility data operations (Section 3.2.1)
  for paper data sheets and importing existing inventory, follow Appendix D

☐ Create STRATUM project using software (Sections 2.3 and 2.4)

☐ Generate STRATUM reports (Section 2.5)