

January 1988

Field Note N°: General--6
Previous Sheet Reference N°: None

THE AUTO-SCALER (MYNIC INC.)

BACKGROUND

Although many scaling alternatives have been developed in recent years, individual tree scale by butt measurement is still widespread in logging operations. This approach requires field measurements followed by data compilation back in the office. Errors can occur both when tallying on paper and during manual compilation. A new device offers a paper-free alternative which reduces the risk of errors and accelerates the whole data compilation phase.

DESCRIPTION

Manufactured by Mynic Inc. of Oromocto, N.B., the **Auto-Scaler** is an electronic data collector connected to a custom scale stick (or calipers) which allows one to automatically record tree measurements (Figure 1). The main components of the system are:

- **data collector:** this part is the core of the system since it runs the scaling programs, provides interim storage of the measurements, and allows interactive access through an alpha-numeric keyboard;
- **scale stick:** available in lengths of 30 or 50 cm (or in caliper configuration), the scale-stick incorporates touch-sensitive keypads graduated at 2-cm intervals. It also allows multiple species selection.
- **data cartridges:** with their 32 K memory capacity, the cartridges allow extensive data collection, yet they are compact and easily carried. Since the data collector compiles the measurements as they are read, a single cartridge is amply sufficient for a full day of conventional scaling;
- **other components include** 20 or 40-hour battery pack, charger, carrying harness, communication cable and instruction manual.

OPERATION

The Auto-Scaler is driven by user-defined programs which are simple to build and provide flexibility as to how and which measurements are recorded. For example, information entered can include block, pile and scaler identifications followed by actual measurements of species, length and diameter. Data can be entered either via the keyboard or by depressing the appropriate key pad on the scale stick. No tallying of information on paper is needed.

At any time, the data can be transferred to the data cartridges. User-assistance keys allow one to load different programs, consult directories, edit data, check memory or battery status, and perform other house-keeping functions. Special options include class scales of diameter groupings, decay/cull adjustments and exact percent or numeric percent scales when only partial scales are used along with stem counts.

Downloading of the data from the data collector or the cartridges to the office computer is simple, requiring a PC-compatible equipped with an RS-232 communication port. Reports can be produced using pre-determined formats or customized tables.



Figure 1. The Auto-Scaler.

PERFORMANCE

FERIC personnel used the Auto-Scaler on a trial basis during the summer of 1987 and found it fairly simple to use. It is somewhat cumbersome to wear, especially in winter, but beneficial in wet conditions as no paper is required. The weight of the unit is currently 0.8 kg. The test scale stick was rigid which presented some inconveniences when butt alignment was poor. However, a flexible version is now available.

Data recording appears slower than using a standard stick and tape recorder, or with a 2-man system. It is however considerably faster, and less prone to recording errors, than a single scaler using forms. Moreover, the efficiency in data compilation is increased with the automatic downloading procedure.

Overall, this system should be of interest to companies doing extensive scaling and who wish to streamline and improve their data compilation process.

FURTHER INFORMATION

The Iroquois Falls division of Abitibi-Price have been using an Auto-Scaler on a trial basis since 1986. Further information on this product can be obtained by contacting:

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A complete package including data collector, rigid scale stick, battery, charger, 1 cartridge, connecting cable and instructions will cost around \$4900.

NOTE: The information contained in this report is based on limited field observations and is published only to disseminate information to FERIC member companies.

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Wood Harvesting Group

