

## THE SONO-GRADER® DOWNLOAD SOFTWARE VERSION 4.02

### RELEASE NOTES

*This release incorporates a number of changes that users have requested, and the instrument to pc communications have been improved and extended to newer operating systems.*

### TRANSFERRING DATA TO PC USING SONO-GRADER SOFTWARE

The SONO-GRADER DOS-based software, is designed to run on an INTEL® compatible computer having an 80286 or higher CPU, having an RS-232 serial communications port, Microsoft® operating systems from DOS v.4.1, 5, 6, WINDOWS 3.1, 95, 98, 2000, ME, & XP. It has not been tested with Linux. The program can be run from a floppy disk, but operation from a hard disk is assumed in these instructions. It is also assumed that the user has a reasonable familiarity with PCs.

The programs do not make use of the Windows® Registry or configuration files.

Be sure the SONO-GRADER docking station is connected to a serial port on the computer and the instrument is fully seated in it.

The main program, **SONO.EXE**, which is used to transfer data from the instrument to a computer or printer. The complete sequence is given in the next section, but briefly the operation is as follows: Either type the program name at a DOS prompt or click on it in Windows Explorer. For added convenience, you can also make a desktop shortcut and click on that. In the shortcut Properties, check Exit on Termination. Follow the directions and prompts on the screen. You will be directed to press certain keys on the Sono-Grader, then asked for the comm port to use, and lastly, for a filespec. If you want to use the file in Excel, then include the .xls extension, otherwise a .txt extension will serve most purposes.

If using Excel, be sure to open the file within Excel, i.e. open Excel then the file, which will enable the text wizard—do not simply click on the file.

### DATA TRANSFER PROCESS

1. Start the SONO program.
2. You can only download Fat/Loin records when the instrument is in Fat/Loin mode and likewise be in Pregnancy mode to download Pregnancy records.
2. Follow the directions on the screen, which are as follows: Place SONO-GRADER in the docking station and connect cable to PC's comm port. On the instrument, press in the following order **ENTER**, **PGM**, **2**, **1**. On the PC, type the comm port number (1-4) and press **ENTER**.
3. The download process begins and terminates automatically and progress is shown on the screen. The datafile will be placed in the location specified, (or the current directory if none is specified). If there is a file of the same name, you will be asked if you wish to Overwrite (Y) or Append (A). If you elect to append, the header will not be included in the file. If transfer does not commence within a short period, it terminates. Pressing **ESC** anytime during the transfer will terminate the process. The transfer process does not erase the data from the SONO-GRADER.

The program will inform you if there is any problem and the nature of the problem.

## THE DATAFILE

The datafile is a standard plain ASCII text file where each data entry is separated by spaces and each data column is 8 spaces wide. It can be edited with any text editor and can be imported into Excel through its text wizard. (Excel can export to many types of formal data formats, so if you have a data handling program that requires a special format, Excel will likely be able to accommodate your use.)

Each line of the file is called a "record" and is terminated with a carriage return and line feed. The first record of each file is a "header" which is the title of the data for each field, e.g. Pen#, Weight, P2Fat, etc. Most database and spreadsheet programs are able to directly import this type of file as "numbers" or "numerics", if header is *not* present. If header *is* present, in most cases it can only be imported as "text", or "strings". (This is not the case with Excel's Text Wizard, which recognizes a header, so it is not necessary to remove the header when using Excel.) It is easy to remove the header with any text editor. Approximate file size for 1,000 animals is 35,000 bytes.

Each record contains 8 fields, which are 8 spaces wide. The contents of each field are right-justified. For that data which may use a decimal point, right-justification with 2-place decimal point justification is used. Each record (a single line), must end in one carriage return and one line feed character.

Records have the same number of fields regardless of disabled options. Disabled option fields are just 8 empty spaces. The Record number is not included.

## THE SONO-GRADER ASCII DATAFILE FORMATS & EXAMPLES

### Examples of Fat/Loin Datafiles:

*Note: Spaces, bolding and type changes have been added here for clarity. In the actual datafile, each column is 8 spaces (including data) wide and there are no special font characteristics. Though not illustrated by the examples, all data is right-justified. Note also that in this upgrade, the comma delimiters have been eliminated.*

(Record Format and header:

Pen# AN# P1Fat P2Fat Loin P3Fat Weight Code#)

When units = *mm* and Weight = *xxx* (rather than *xxx.x*):

21	4	22	25	67	22	105	22
3456	1111	22	28	63	20	108	18

If Weight = **xxx.x**, the following datafile results:

21	4	22	25	67	22	<b>104.6</b>	22
3456	1111	22	28	63	20	<b>108.2</b>	18

If units = *inches* and Weight = *xxx*, the following datafile results:

21	4	<b>0.78</b>	<b>0.96</b>	<b>2.62</b>	<b>0.86</b>	231	22
3456	1111	<b>0.86</b>	<b>1.08</b>	<b>2.46</b>	<b>0.76</b>	237	18

And if Weight = **xxx.x**, the following datafile results:

21	4	<b>0.78</b>	<b>0.96</b>	<b>2.62</b>	<b>0.86</b>	<b>231.4</b>	22
3456	1111	<b>0.86</b>	<b>1.08</b>	<b>2.46</b>	<b>0.76</b>	<b>237.8</b>	18

## SENDING DATA TO COMPUTER AND PRINTER

Stored data is downloaded to a computer or sent directly to a printer in the same manner as that used for fat/loin. The download program is called **SONO.EXE**, contained on the supplied software disk. (Refer to the appropriate sections of this manual for complete details.) The ASCII datafile has the format shown below, and the same characteristics as that used for fat/loin measurements: (Bolding color are used only for purpose of illustration.)

Data Format and Header: Pen# AN# Status Code#

1	1	0	18
1	2	1	25
1	3	1	30
1	8	0	29

In the **Status** field (third column), **1** = Pregnant and **0** = Not Pregnant  
(The **Code#** field has been used above to indicate days after mating, but it can be used for any purpose or omitted by being disabled in the **Setup** menu.)