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SECTION 1: INTRODUCTION

Thank you for purchasing Pinnacle Technology Inc.'s RFID reader. Pinnacle's RFID system allows precise location monitoring. The RFID units are an essential component of Pinnacle's Sirenia® Multiple Animal Tracking software to maximize positive animal identification, or they can be used independently to track location in defined areas. Multiple modules can be used simultaneously and flexibly placed at positions of interest beneath the cage.

Warranties

Pinnacle Technology Inc. products are fully warranted against defects in material and workmanship. Potentiostats, basestations, EEG/EMG preamplifiers and data acquisition systems are unconditionally warranted for one year from date of shipment, except when failure is due to obvious abuse or neglect, unauthorized tampering, procedures not described in manuals, animal attack, improper connection of electronic units to other components, or use with animals other than those intended. Commutators/swivels are warranted for 180 days from date of shipment under the same exclusions.

For any product expressly covered under this warranty, Pinnacle Technology Inc. is liable only to the extent of repair or replacement of defective items. Pinnacle Technology Inc. shall not be liable for any personal injury, property damage or consequential damages of any kind whatsoever. The foregoing warranty is in lieu of all other warranties of merchantability and fitness for a particular purpose.

Returns

- No merchandise will be accepted for return without prior authorization; authorizations can be obtained by calling 785-832-8866.
- Custom-made/custom-cut items are non-returnable.
- For all other items, claims must be made within 10 days of delivery.
- There is a 15% restocking charge on all returned merchandise.

Damaged Shipments

Breakage during shipping should be reported immediately to Pinnacle Technology Inc. at 785-832-8866. Retain the original packing box and contents for inspection by the freight handler. Pinnacle Technology Inc. will replace any new instrument damaged in shipping with an identical product as soon as possible after the claim filing date. Claims not filed within 30 days of the shipping date will be invalid.

Do not return damaged goods to Pinnacle Technology Inc. without first contacting Pinnacle for a return authorization.



SECTION 1: INTRODUCTION

FCC Certification

1. FCC Interference Statement (Part 15.105 (b))

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

2. FCC Part 15 Clause 15.21 [Do not Modify warning]:

"Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment"

3. FCC Part 15.19(a) [interference compliance statement], unless the following statement is already provided on the device label:

"This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

4. FCC RF Exposure Guidance Statement:

"In order to comply with FCC/ISED RF Exposure requirements, this device must be installed to provide at least 20 cm separation from the human body at all times.



SECTION 2: SETUP AND INSTALLATION OVERVIEW

Pinnacle's RFID reader is extremely versatile and can accommodate a number of experimental set-ups. RFID tags are ordered separately.



SECTION 2.1: RFID SETUP

Glossary of Hardware



8252: Power Supply



9002: USB Cable



9005: Powered USB Hub



9026: Splitter Cable



9087: RFID Module

SECTION 2.1: RFID SETUP

Step 1

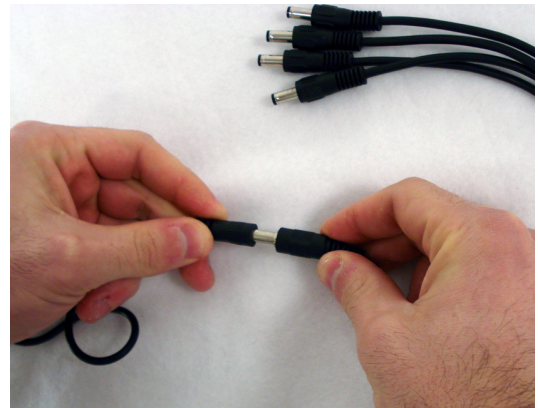
Plug in the 8252 power supply.



Step 2

Connect the male end of the 8252 power supply to the 9026 splitter cable.

Note: The splitter cable is only necessary when using multiple RFID modules. For systems operating only one RFID module, skip to Step 4. The 8252 power supply will connect directly to the 9087 RFID module.



Step 3

Connect one of the male ends of the 9026 splitter cable to the 9087 RFID module (circled left).



Step 4

The small end of the 9002 USB cable connects to the 9087 RFID module (circled right); the oth end should connect to the 9005 USB hub (see Step 5).



Step 5

Plug the small end of the USB cable included with the 9005 into the back of the USB hub and connect the other end to the computer. Connect the included power supply.

SECTION 2.2: SOFTWARE SETUP



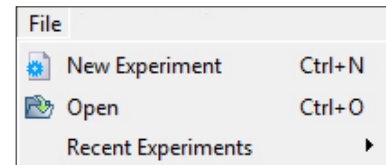
Before connecting any hardware to your PC, USB drivers *MUST BE INSTALLED*. See *Sirenia® Manual, Section 2*.



Step 1

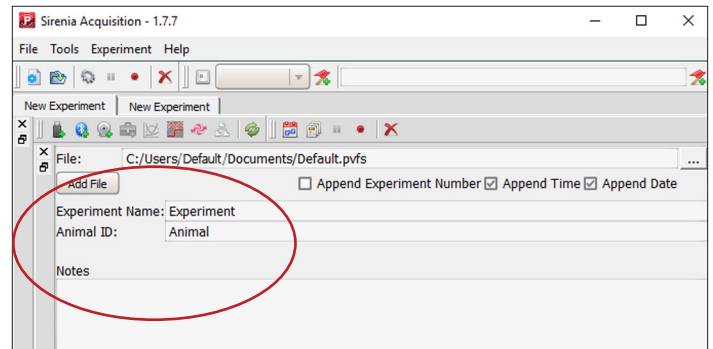


With Sirenia® Acquisition open, select “New Experiment” from the File menu, or click the New Experiment icon from the Main toolbar.



Step 2

This opens a New Experiment tab. Give the experiment a unique name, give the animal an ID and take any necessary notes in the space provided.



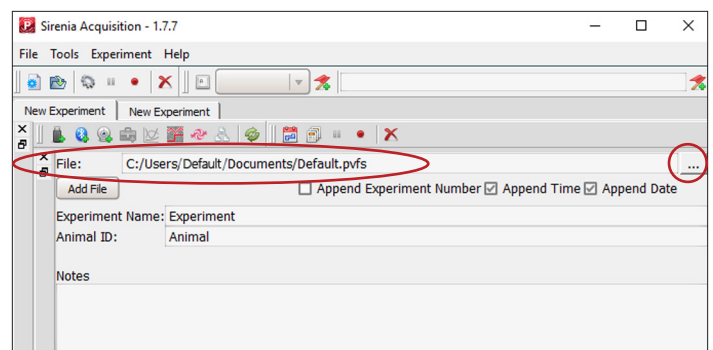
Step 3

Data collected using Sirenia® Acquisition automatically saves as “Default” to a PAL folder in My Documents as a Sirenia® data format (.pvfs) file.

To change the name of the file, type a new name directly into the File text box.


To change the default location, click the Open Directory button to the right of the File text box and select the desired location on your PC.

Note: Additional information on saving files, including steps on saving data streams to separate files, can be found in Section 3 of the Sirenia® manual.



SECTION 2.2: SOFTWARE SETUP

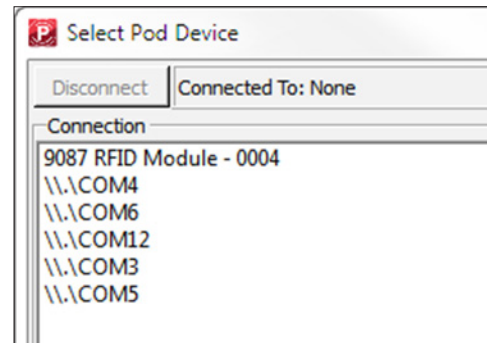
Step 4

 Click “Add USB” under recording devices, or click the “Add Device” icon located in the Experiment toolbar.



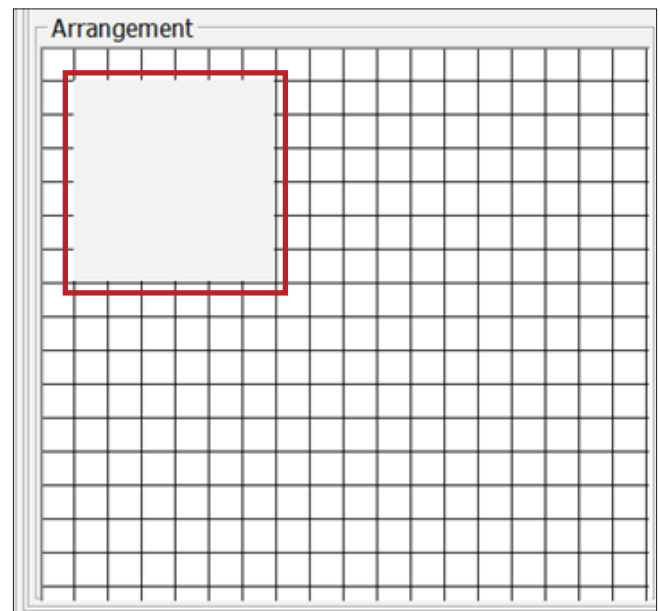
Step 5

A Select Pod Device window appears. From the Connection box, select the 9087 device that matches your experimental setup.



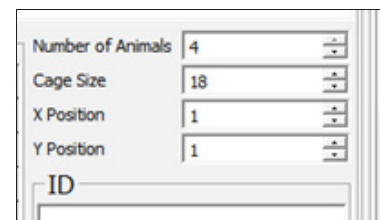
Step 6

In Settings, under Arrangement, move the square representing the current RFID module to the corresponding location under the cage.



Step 7

Set the number of animals and cage size (inches). When finished, click OK.

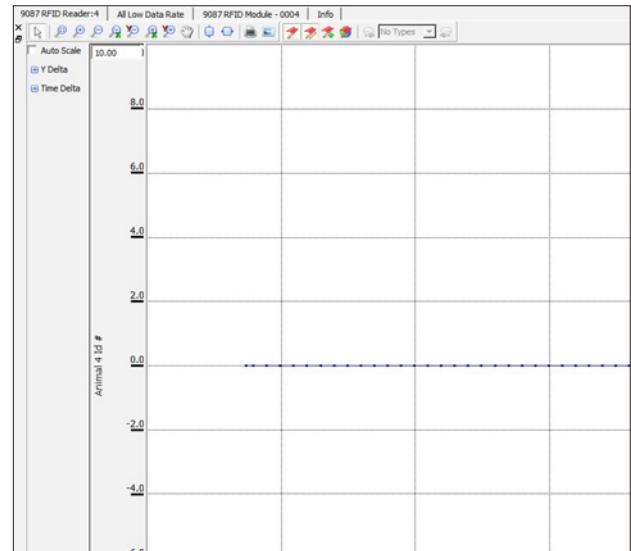


SECTION 2.2: SOFTWARE SETUP

Step 8

After the device is added, a new set of tabs opens under the New Experiment Tab. A new tab will be created corresponding to input from the RFID reader. Each dot will represent a single read period. 0 = no RFID detected; 1-4 = RFID read from animal (1-4).

For additional information about tabs and their functionality, see the Sirenia® Acquisition section of the Sirenia® manual.



Step 9

Repeat Steps 4-7 until all RFID modules have been added. After all RFID units have been set up, click the Record button.

