



INVENTORY v2.0

MANUAL

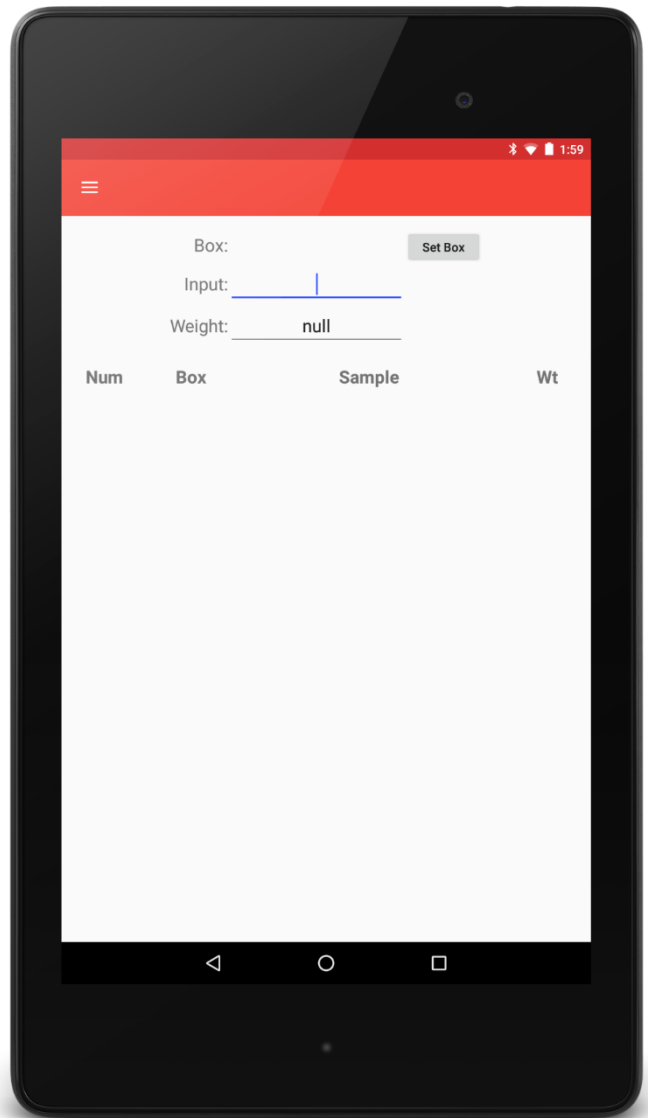
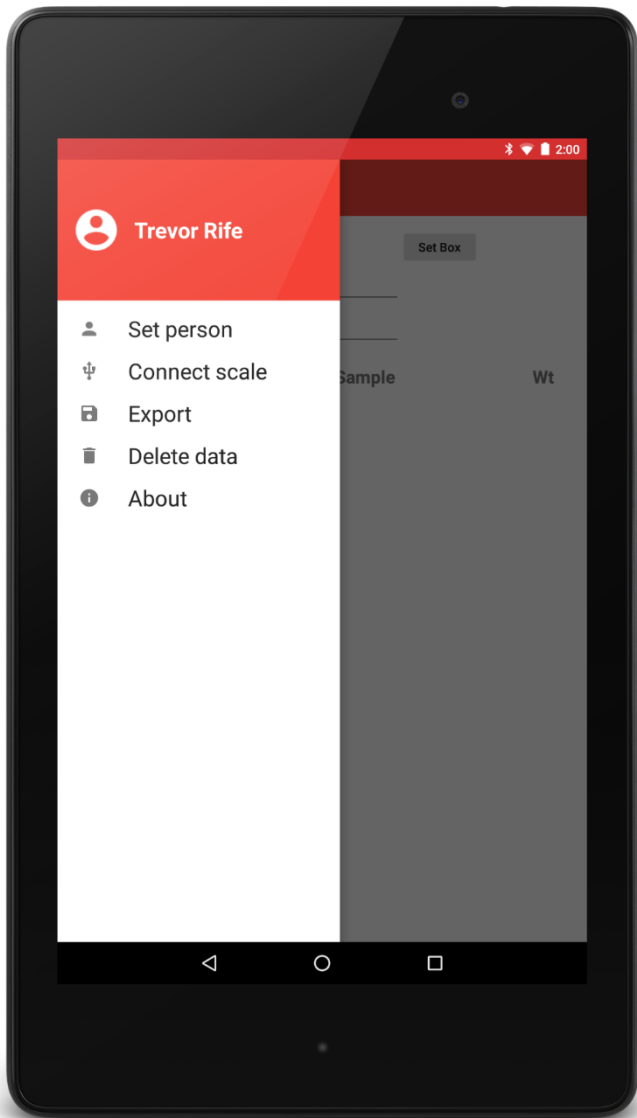


Figure 1. Examples of Inventory running on a Nexus 7

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Introduction

Inventory is an open-source Android app that can be used to quickly associate sample ids with a given container and further extended to capture sample weight.

Inventory has a simple interface which will encourage adoption of the app without a steep learning curve. With low-cost, accessible solutions, the vision of one handheld per breeder can become a reality for breeding programs around the world.

Getting Started

Inventory can be downloaded from [Google Play](#) on phones and tablets. The source code for Inventory is available on [GitHub](#).

Folder Organization

Once Inventory has been installed and opened, it will create a folder called 'Inventory' on the device SD card. All exported files will be exported to this folder.

Setup

Inventory associates the name of the person collecting data with each sample that is collected. 'Person' can be set by opening the navigation drawer and choosing the 'Set person' option.

If an Elane USB scale is connected, the device will automatically try to open Inventory and communicate with the scale to read the current weight. If the app is already open, the 'Connect scale' option in the navigation drawer can be used to initiate communication with the scale.

Collecting Data

The 'Box' can be optionally set using the 'Set Box' button on the main screen. Sample ids can be typed or scanned in the 'Input' text box. The 'Weight' text box is set to 'null' by default but can be manually updated if necessary and will be updated automatically with the current weight being read an attached scale.

Exporting Data

Data in Inventory can be exported in two formats: a flat file format and an SQL format. Samples in the Inventory database are removed once exported.

Flat file (CSV)

The flat file is a simple CSV file that includes the box id, sample id, a timestamp, the name of the person who collected the data, and any weight that was also collected.

box_id	seed_id	inventory_date	inventory_person	weight_gram
110	16RPN00001	2015-11-09-07-39-31	Trevor_Rife	null
110	16RPN00002	2015-11-09-07-39-33	Trevor_Rife	null
110	16RPN00003	2015-11-09-07-39-43	Trevor_Rife	null
110	16RPN00004	2015-11-09-07-39-45	Trevor_Rife	null
110	16RPN00005	2015-11-09-07-39-45	Trevor_Rife	null
110	16RPN00006	2015-11-09-07-39-45	Trevor_Rife	null
110	16RPN00007	2015-11-09-07-39-46	Trevor_Rife	null

SQL

The SQL format was developed specifically for the Poland lab inventory protocol. This format generates a database query that first removes boxes that previously existed in the database but were just re-inventoried. Then it adds all samples in the Inventory file back to the database. Using this approach, we guarantee that samples removed from the seed inventory are also removed from the database.

Hardware

Inventory is compatible with Android phones and tablets running Android 4.0 and newer. The devices that are used for development and known to be 100% compatible with Inventory are the Nexus 7, Nexus 5, and Moto G. However, most Android devices will be compatible with Inventory.

Inventory is compatible with the [Elane USB Plus 5kg](#) scale and the [Elane USB PS2000 5kg](#) scale.

Acknowledgements

Development Team

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