Audit, not what it seems.

AUDIT MODULE REDESIGN - MOBILE (2019-2020)

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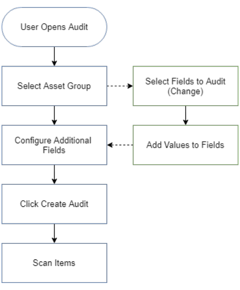
Overview

Asset Panda, an asset tracking platform, had an auditing module created for clients to quickly audit and enter new assets into the system.

The challenge was to redesign this auditing tool to be more user friendly and robust. The new module had to be easy enough for technologically impaired users to use but featured-packed enough for large enterprises.

The outcome of the redesign was that managers at large enterprises now had a tool they could set and forget and pull important information when needed. Users had a tool to easily perform audits without the worry of setting it up.

The Problem

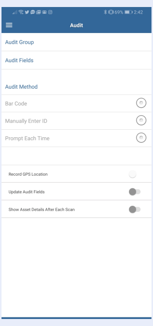
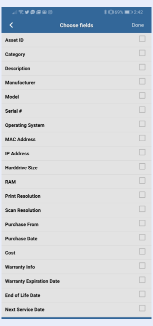
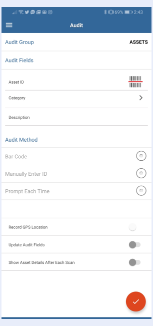
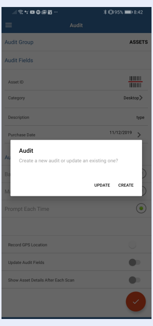

User Opens Audit
Select Asset Group
Select Fields to Audit (Change)
Configure Additional Fields
Add Values to Fields
Click Create Audit
Scan Items

The auditing module was getting less and less used as clients started to see its limitations. On the surface, the module looked to perform exactly how users would want.

Though the original user flow looked simple, digging deeper into the system, issues started to arise.

If optional fields and its values were configured, audited items would instantly update with those values While this is great for clients looking to audit new items into their system, it was not easy to understand and didn't provide a way for users to know what they needed to audit.

The Original Screens

The Research

When reaching out to clients, we wanted to understand the following:

- Their current process auditing items.
- What a successful auditing tool is to them.

From the many clients that we reached out to, we quickly found that they could be categorized into two distinct groups.

The Small Fish

- Mom-and-pop stores.
- Less than 20 workers.
- Less than 3 locations.
- Perform audits when they have time.

The Big Fish

- Larger companies, some enterprises.
- Over 25 workers.
- Large warehouses; more than 5 locations.
- Perform scheduled audits.

The Small Fish

When interviewing these clients, they expressed that they loved how easy it was to quickly set up and perform an audit on the current system. We found that these clients usually reside in the same room as their assets.

They could be small store owners who decide to perform an audit on a slow day. They could also be small operations where all items will eventually come back to one centralized location. The big challenge here was that we weren't just trying to best clients who used convoluted Excel documents but amazingly efficient workarounds our own implementation team created.

The Big Fish

These clients were very vocal in expressing their inability to perform audits the way they wanted on our system. They had numerous amounts of workers, some reaching in the thousands, and needed a way to keep track of what each worker-owned or a detailed report of their assets.

In most cases here, the clients had office workers who only wanted to tell lower-level workers when and what to audit. The workers who would be performing the audits were usually technologically impaired.

With these clients we were almost always fighting with Excel.

Goal

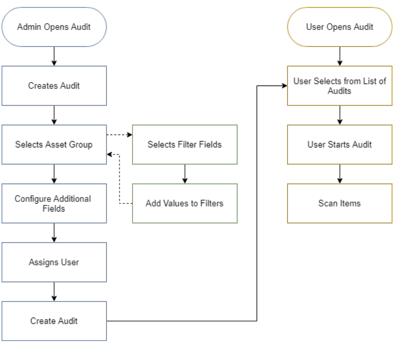
Based on the research, these were the goals I hoped to achieve with the redesign.

- Come up with a methodology to satisfy our larger clients.
- Keep the ease of use similar to our existing system for our smaller clients.

The Solution

Having understood the goals, I started developing ideas to help me achieve these goals.

A 2 Flow System

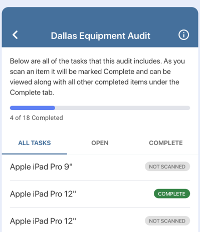

Admin Opens Audit
Creates Audit
Selects Asset Group
Selects Filter Fields
Configure Additional Fields
Add Values to Filters
Assigns User
Create Audit
User Opens Audit
User Selects from List of Audits
User Starts Audit
Scan Items

The new system was composed of two different user flows. An admin flow and a user flow.

An admin would be able to create an audit, schedule, and assign it. These audits would appear for the users it was assigned to.

User flow for users performing audits was kept as simple as possible. They did not need to worry about anything besides scanning the items.

New Features


Dallas Equipment Audit

Below are all of the tasks that this audit includes. As you scan an item it will be marked Complete and can be viewed along with all other completed items under the Complete tab.

4 of 18 Completed

ALL TASKS
OPEN
COMPLETE

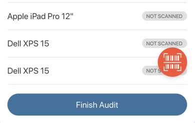
Apple iPad Pro 9" NOT SCANNED

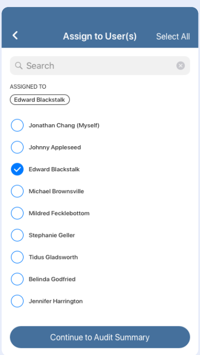
Apple iPad Pro 12" COMPLETE

Apple iPad Pro 12" NOT SCANNED

Burndown Lists

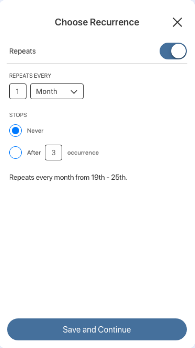
Audits now provide you a burndown list of items to audit to check off scanned items instead of updating the item's fields.


Apple iPad Pro 12"
NOT SCANNED
Dell XPS 15
NOT SCANNED
Dell XPS 15
Finish Audit


Assign to User(s)
Select All
Search
ASSIGNED TO
Edward Blackstalk
Jonathan Chang (Myself)
Johnny Appleseed
Edward Blackstalk
Michael Brownsville
Mildred Fecklebottom
Stephanie Geller
Tidus Gladsworth
Belinda Godfried
Jennifer Harrington
Continue to Audit Summary

Assignable Audits

Clients can now assign audits to multiple users to perform the audit.


Choose Recurrence
Repeats
REPEATS EVERY
1
Month
STOPS
Never
After
3
occurrence
Repeats every month from 19th - 25th.
Save and Continue

Scheduled Audits

Audits can be scheduled ahead of time and set to recur. This allows the bigger clients to set and forget.

Templates

One issue that arises from the new recurring functionality was how to manage multiple audits getting created.

To solve this, templates were created. Templates provided a place for users to see all occurrences of that specific audit in addition to the settings used.

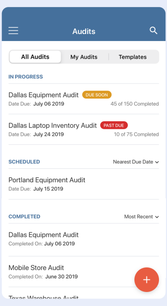
Additionally, with the new system, the smaller clients felt it was a long process to perform an audit. From this we extended the templates to audits that did not recur. These smaller clients wouldn't need to configure every time they decide to perform an audit. They can choose which template they want to run the audit on.

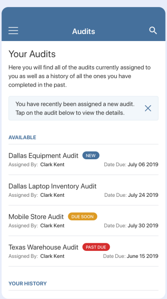
Screens

Here are a few of the screens from the redesigned Audit! They cover the main functionality of the system.

Landing

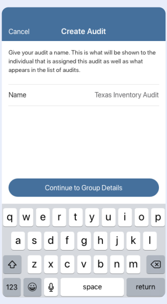
The new landing screen consisted of two different views. One for Admins and the other for Users.

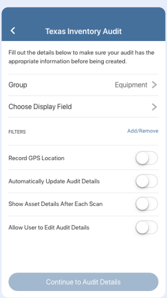

Audits
All Audits
My Audits
Templates
IN PROGRESS
Dallas Equipment Audit
Dallas Laptop Inventory Audit
SCHEDULED
Portland Equipment Audit
COMPLETED
Dallas Equipment Audit
Mobile Store Audit

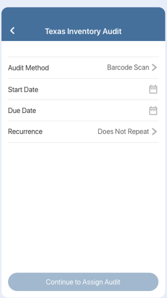

Audits
Your Audits
AVAILABLE
Dallas Equipment Audit
Dallas Laptop Inventory Audit
Mobile Store Audit
Texas Warehouse Audit
YOUR HISTORY

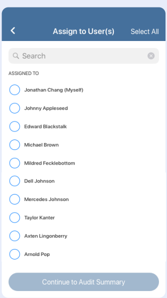
Creating a new audit

Due to the extent of options included, the creation of an audit was separated into 4 distinct sections. Name > Select burn down list details > Other setting / Scheduling > Assign User


Cancel
Create Audit
Name
Texas Inventory Audit
Continue to Group Details

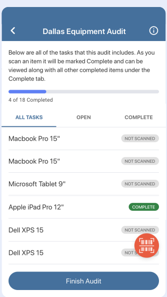

Texas Inventory Audit
Group
Equipment
Choose Display Field
FILTERS
Add Filter
Record GPS Location
Automatically Update Audit Details
Show Asset Details After Each Scan
Allow User to Edit Audit Details
Continue to Audit Details

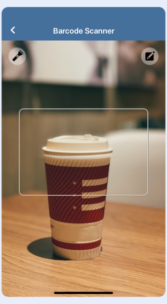

Texas Inventory Audit
Audit Method
Barcode Scan
Start Date
Due Date
Recurrence
Does Not Repeat
Continue to Assign Audit

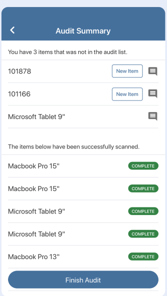

Assign to User(s)
Select All
Search
ASSIGNED TO
Continue to Audit Summary

Performing Audits

When selecting an audit, users are taken to a burndown list of the items they need to audit. From this page they can go to the scanner or finish an audit. If they finish an audit, they would be taken to a summary screen to review the audit and confirm they are finished. Users are able to add comments to new items here.


Dallas Equipment Audit
ALL TASKS
OPEN
COMPLETE
Macbook Pro 15"
Macbook Pro 15"
Microsoft Tablet 9"
Apple iPad Pro 12"
Dell XPS 15
Dell XPS 15
Finish Audit


Barcode Scanner


Audit Summary
101878
New Item
101166
New Item
Microsoft Tablet 9"
Macbook Pro 15"
COMPLETE
Macbook Pro 15"
COMPLETE
Microsoft Tablet 9"
COMPLETE
Microsoft Tablet 9"
COMPLETE
Macbook Pro 13"
COMPLETE
Finish Audit

User Feedback and Iterations

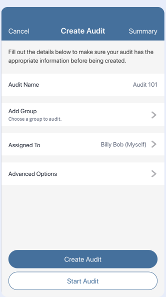
With the beta version of audit completed, we moved on to letting users test the system and running internal reviews. The feedback led us to see that while nearly everyone was satisfied with the product, there were many improvements to be made.

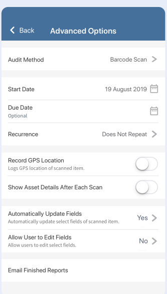
Creation Process

One finding was during the audit creation process. Many of the smaller clients would speed run through the creation. e.g. didn't mind what the audit was named. The larger clients didn't mind the extra time it took to configure the product.

From this, we found that we could remove the step by step process and simply move the "advance features" into its own area. This allowed for a faster creation process for the smaller clients yet retaining the vast functionality available to larger clients.

We would prefill fields to expedite the process and include the ability to start an audit from the create screen.

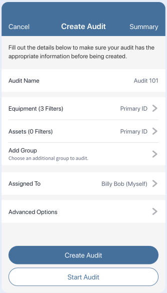

Cancel
Create Audit
Summary
Audit Name
Audit 101
Add Group
Assigned To
Billy Bob (Myself)
Advanced Options
Create Audit
Start Audit


Back
Advanced Options
Audit Method
Barcode Scan
Start Date
19 August 2019
Due Date
Optional
Recurrence
Does Not Repeat
Record GPS Location
Show Asset Details After Each Scan
Automatically Update Fields
Yes
Allow User to Edit Fields
No
Email Finished Reports

Multiple Group Audits

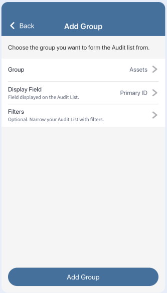
A big request when clients started demoing the new audit system was the ability to get a burndown list from different parent lists. e.g. one list for assets from the computer group and truck group.

This new design helped us achieve this ask by separating the group pages to reduce confusion and clutter on the main screen.


Cancel
Create Audit
Summary
Create Audit
Start Audit

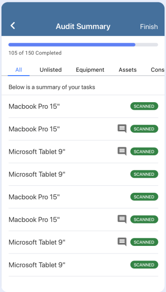
Fill out the details below to make sure your audit has the appropriate information before being created.

Audit Name Audit 101
Equipment (3 Filters) Primary ID
Assets (0 Filters) Primary ID
Add Group
Choose an additional group to audit.
Assigned To Billy Bob (Myself)
Advanced Options


Back
Add Group
Add Group

Choose the group you want to form the Audit list from.

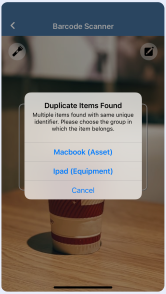
Group Assets
Display Field Primary ID
Field displayed on the Audit List.
Filters
Optional. Narrow your Audit List with filters.


Audit Summary
Finish
All
Unlisted
Equipment
Assets
Cons

105 of 150 Completed

Below is a summary of your tasks

Macbook Pro 15" SCANNED
Macbook Pro 15" SCANNED
Microsoft Tablet 9" SCANNED
Microsoft Tablet 9" SCANNED
Macbook Pro 15" SCANNED
Macbook Pro 15" SCANNED
Microsoft Tablet 9" SCANNED
Microsoft Tablet 9" SCANNED


Barcode Scanner
Macbook (Asset)
Ipad (Equipment)
Cancel

Duplicate Items Found
Multiple items found with same unique identifier. Please choose the group in which the item belongs.

Multiple groups required us to redesign the summary pages and handle serial numbers that existed in multiple groups but are different items.

For the summary page, we turned to tabs to separate the groups. We also made a terminology change from “Completed” to “Scanned” to better match the method used to audit an item.

For duplicate serial numbers, we used an overlay to allow users to quickly select where an item belongs.

Closing

Looking back on the work done, there were many tough battles to get this design ready for the vast variety of users. There was a constant tug a war between adding more and more features for large clients and retaining the simplicity for the smaller clients. These battles turned out to be very beneficial for the final product. It helped us iterate the design to be more streamlined and feature-packed.

Though we identified many conflicts that still need to be resolved in the next iteration, clients have expressed they absolutely love the new audit module. Many can’t find faults but through watching their interaction and workflow, we are able to find ways to make their workflow easier.

There is also a desktop version of this that expands on some features talked about in this case study in addition to other features. This case study can be shown on request.