

## Project Summary

The big thing our client wanted from the project was to modernize the way they were collecting data in the field. The old devices they were using looked like the thing in the image below and had user interfaces straight out of the early 2000s. To top things off, they tended to crash and lose data while out in the field making it necessary for the field crews to carry around a laptop for them to sync the devices to a couple times a day to make sure they don't lose a load of work.



When our client came to us with the project they had already decided on using Open Data Kit X (ODK-X), as it met many of their needs right out of the box, with things like the ability to sync data to a remote server over the internet. Part of the work we had to do for the project apart from creating the app was to set up the server software the app would talk to so that it has somewhere to sync data to. (For the curious, this software runs in a Docker swarm on a virtual server somewhere in OSU's Forestry department.)

ODK-X provides a handful of Android apps which can collect data. One is called aptly named "Survey" and it provides the ability to simple forms which can be configured via a series of Excel spreadsheets. We initially started development trying to see how far we could get in the project through this method, as the configuration for it is well documented and would make it easier for our client to make changes to the forms after we had left the project. We quickly realized that the most important requirements our client had could not be implemented in Survey.

We then switched to the other app provided by ODK-X called "Tables", which development-wise was much easier for us as Computer Science students to wrap our heads around as it essentially boiled down to standard web development. From there things progressed much more smoothly and we were able to meet our client's feature requirements, while being able to implement other features which should help maintain our client's ability to make changes to the various forms without the help of a developer.