

Electrical tools (except those with a self-contained power source) must never be used in trees near an energized electrical conductor when there is a possibility of the power cord contacting the conductor; tool operators must use tools in accordance with the manufacturers' instructions. When tools are used aloft, an independent line or lanyard should support the electrical tool. Operators should prevent cords from becoming entangled or coming in contact with water.

Sharon Lilly is ISA's director of educational goods and services.

This article was adapted from the third edition of *Tree Climbers' Guide third edition*, which is available at the ISA web store (www.isa-arbor.com/store).



Listen to more online
www.isa-arbor.com/arborpod/ArborViews

Listen to Matthew Palmer speak about how trees affect safety and reliability of distribution of electrical powerlines on the episode *Visual Tree Assessment for Electricity Reliability*.

Using a Mobile Device to Collect Tree Data

By Jerry Bond

Although I use a dedicated data collector for large projects, I like to avoid charging, setting up, and carrying that equipment for small jobs, where its advanced features are time-consuming and unnecessary. I always have my cell phone (Android™ platform) charged and with me, and have since explored how it could be used.

In this short article I only outline a method that can be used for mobile devices using the same platform; details are available on the Open Data Kit website (described herein). You don't need to be a computer wiz to use this method. All you need is a basic familiarity with computers and willingness to experiment a bit. At present, the underlying software only works on an Android-enabled device.

Requirements

- An Android smartphone or tablet (including the Kindle Fire™)
- Familiarity with loading files onto your phone via cable, Wi-Fi, or the Cloud

Setup

- Install free app "ODK Collect" on device from Google Play or directly from the Open Data Kit website.
- Create a data collection form in a browser using drag-and-drop methods, working with a Microsoft® Excel™ template or writing the xml code. There are also existing forms that you can download for testing.
- Transfer data collection form, and any associated images, over to mobile device.
- Install the data retriever "ODK Briefcase" on host computer (works on all platforms).

Use

- The form's operation is self-explanatory: swipe to change pages; tap or write to enter data.
- After data collection is done, link device to host computer.
- Open the Briefcase to upload your data and save it for use in a spreadsheet.

Web Resources

- Open Data Kit (<http://opendatakit.org/>)
- ODK Collect (<http://opendatakit.org/use/collect/>)
- ODK Briefcase (<http://opendatakit.org/use/briefcase/>)
- ODK Help (<http://groups.google.com/group/opendatakit>)
- Sample forms
 - <http://code.google.com/p/opendatakit/source/browse?repo=forms>
 - www.urbanforestanalytics.com/Android

I have found this method of mobile data collection to be very fast. For instance, it definitely speeds up the use of methods espoused in ISA's *Best Management Practices: Tree Risk Assessment*. Furthermore, the ability to take pictures, measure height, and record GPS location using the device (quality will vary by device and situation) simplifies things greatly.

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