

**WaterWheel, the rock band's charitable arm, is using Truecount's RFID EPC UHF solution to make inventory counts efficient and accurate for merchandise it gives away to donors as thank-you gifts.**

By Claire Swedberg

Feb. 2, 2012—The [WaterWheel Foundation](#), the charitable arm of rock band [Phish](#), is employing an RFID-based solution to improve its inventory process, as it takes its nonprofit program on tour with the band. The TC Mobile Merch solution, provided by [Truecount](#), was utilized by volunteers during a trial deployment throughout last summer.

Phish is often on the road, and therefore, WaterWheel must be as well. As the band tours throughout the United States each summer, the foundation joins them, opening a venue at every location from which it raises money for local charities, as well as through donations and the sale of shirts, hats, sweatshirts and other [WaterWheel merchandise](#). Those items must be inventoried at each stop, when they are unpacked from the truck and again when they are returned to the vehicle. With TC Mobile Merch, the foundation reports, the task can be accomplished within 10 to 12 minutes, instead of two and a half hours.



*Matthew Beck packs WaterWheel merchandise into a case at the end of a show in 2011.*

Truecount's founder, Zander Livingston, has been following Phish for years, and has joined the band's entourage on the road, donating his own services to assist in the loading and unloading of equipment from one location to another. Livingston's company, fueled by his determination that radio frequency identification could expedite the efforts of WaterWheel's volunteers, developed the TC Mobile Merch solution. Having donated a deployment of the TC Mobile Merch system to the WaterWheel Foundation, Truecount is now in discussions with other festival and event managers regarding the use of its solution to manage merchandise at music or sporting events.

Phish created the WaterWheel Foundation in 1997, to consolidate and manage the band's ongoing charitable activities. The foundation aims to raise funds for pre-selected charitable causes in the

communities in which the group performs. As a way to raise money, WaterWheel gives away eco-friendly, sustainable Phish-related merchandise, such as clothing and accessories, as gifts to concert-goers who make donations.

At each show, WaterWheel volunteers help unpack cases in which hundreds of items are transported. The volunteers count each item, maintain a paper record of those goods and then place them on display. At the end of the show, the merchandise is counted again by volunteers—not always by the same individuals who performed the previous count—and they, too, record the results before packing the items onto trucks. Based on those counts, the WaterWheel Foundation must then order additional merchandise from its warehouse, which ships replenishments to the next tour location, to be added to the existing inventory. The counting process typically took two and a half hours to complete, Livingston says, and was error-prone since it was carried out by new volunteers with a variety of training backgrounds. The building and then dismantling of Phish concerts, including the WaterWheel Foundation booth, "is carefully choreographed, and it's all about speed," he explains. If the counts fall behind, the goods' transportation can be delayed as a result.

"We work in a continually changing landscape from day to day," says Matthew Beck, the WaterWheel Foundation's touring director, "ranging from festivals and arenas to amphitheaters and beyond." This frequently changing environment, he notes, "provides a constant stream of variables with regard to time and space constraints." Livingston proposed an RFID solution to Beck, who says he was hopeful that the technology might "stabilize the variables," thereby improving the accuracy of inventory counts, and reducing the time required to conduct them.

Truecount offered to donate its own software—to manage read data—and installation, as well as provide training to volunteers, while [Checkpoint Systems](#) donated the EPC Gen 2 ultrahigh-frequency (UHF) tags that would be attached to products. In addition, Truecount supplied a [Motorola MC3190-Z](#) handheld reader to interrogate the tags (2,500 of which were attached to the merchandise), store the unique ID numbers and then upload that data to a laptop, where Truecount software would manage that information.



*Truecount's founder, Zander Livingston, at a Phish concert, where he helped tag WaterWheel merchandise.*

During the trial, merchandise was first unpacked from the two large road cases—heavy-duty plastic trunks measuring approximately 6 feet by 4 feet by 3 feet in size. As the merchandise was removed, Truecount and the WaterWheel volunteers first commissioned a tag by reading it and linking an item's stock-keeping unit (SKU) with the Electronic Product Code (EPC) number encoded on that tag. The protective paper backing was peeled off the adhesive tags, one of which was then affixed to each hat, fleece jacket, hoodie or other item.

At the end of each day, volunteers could carry the handheld reader around the booth and read the tag IDs, thus completing a daily inventory count. The handheld unit could then be plugged into the laptop, where Truecount's software compared the read data against previous inventory counts, displaying any items that may need to be replenished for the following day. If those goods were available in one of the trucks, staff members at the WaterWheel Foundation could then seek those extra items.

At the end of a particular performance, the booth was broken down, the RFID tags were again read via the handheld, and the merchandise was then packed into the cases, to be sent to the next venue. Workers could use the results from that final inventory scan to determine if additional items needed to be ordered.

Following the conclusion of the 2011 season, Truecount developed the TC Mobile Merch solution for commercial use, consisting of a laptop computer loaded with Mobile Merch software to manage inventory data, a Motorola FX 7400 reader for desktop reading of tags (to be used for commissioning tags), a Motorola MC3190-Z handheld interrogator and tags—all fitting into a single case—so that merchants could become RFID-enabled within a matter of hours. A user would be able to simply open the case, remove the handheld reader, activate the laptop and begin commissioning tags or taking inventory. The WaterWheel Foundation intends to use the system during this summer's events as well.