NEWSLETTER

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By **Keith Parsons, CWNE #3** · 2026-03-20 · originally on LinkedIn

Nick Turner calls BadgerWiFi-Tools an “evenings and weekends kind of project.” At WLPC Phoenix 2026, he walked through how it got from a folder of Python scripts to a signed, packaged application — and why AP renaming was the problem that drove the whole thing.

It started around 2020, automating tasks related to Ekahau project files — unpacking them, extracting AP images, repacking them. Things Nick wanted to do that François Vergès’ scripts already did, but not exactly the way he wanted. So he cloned that repo, made changes, and kept going.

The scripts worked. The problem was everything else. Output printed to terminal. No preview of what a rename pattern would do before running it. And when the logic got complex — name all the APs in this row left to right, then the next row left to right — there was no way to explain to a colleague what the script was about to do. The rename order jumped around based on x- and y-axis coordinate values and there was no way to show anyone why.

In 2024, he started building a user interface using wxPython — permissive licensing for both commercial and open source use, and relatively straightforward to arrange the way he wanted. The real reason was more direct:

“I noticed a reluctance among my peers to run scripts. I had the aha moment of — wait a minute, I can create a button and put that on someone’s computer and they can click it and then my script gets run on a target. Well now I’m getting drunk with power.”

ChatGPT helped with the framework through the chat interface — a lot of copy/paste into PyCharm, run it, it crashed, copy the error, back and forth. The project got a name: BadgerWiFi-Tools.

By 2025, he had switched to Codex in the terminal — running inside the same folder as all his Python files, making connections between them and finding bugs he likely would never have caught on his own. The project needed to reach more people, which meant it couldn't be a repo you clone anymore. It needed to be an application.

That meant working through architecture targets, packaging, code signing, notarization, and a decision on commercial vs. open source. He used a tool called Briefcase for packaging, producing three builds: ARM64 Mac, Intel Mac, and x86 Windows. The Apple developer account runs about $100 per year. Packaging and signing takes around 16 seconds; notarization averages four minutes. The Windows code signing certificate cost $750, valid for three years, and arrived on a physical token in the mail. SmartScreen is still building trust.

On what he built and what it is:

"I'm not claiming to be a software developer, but I have created some software. I'm not claiming to be a proficient user interface designer, but I have created something that functions and it fits my workflow. I built this tool to address problems that I have. The problem is me here."

He landed on a pay-to-play model — the app does some things unregistered, registering unlocks more, and there's a two-week trial.

"If it doesn't provide you with any value, I don't want your money."

The interface is a drag-and-drop box for the Ekahau file, an activity console, and three tabs: Predictive Design, Asset Creation, and Survey. Nick demonstrated four things at the conference.

Project file summarization: drag in an ESX file, and the tool parses the JSON inside it and outputs a text file — AP count, duplicate name check, models, colors, heights, mounting, tilt, transmit powers, tag key/value pairs, APs per floor.

Image extraction: pull AP images and map note images out of the project file into organized folders. Map note images are named with the date and time stamp from when the photos were taken.

Map creation: blank maps, area maps, AP location maps, zoomed AP maps (one centered image per AP, adjustable zoom and icon size), and post-deployment survey maps. The last one reflects about a year and a half of Nick's own validation workflow — surveying on top of a

map that shows where APs were designed to go, with a red circle icon marking each intended AP location. The red circle doesn't compete visually with Ekahau's own icons during a survey on iPad.

And the white whale — AP renaming. The AP name visualizer shows the rename pattern before it runs. Sweep on x-axis, sweep on y-axis: the numbers bounce around. Auto rows puts bands across the map and names APs left to right within each band. Auto columns is the same principle vertically. For warehouses where aisles don't align cleanly, manual rows and manual columns let you drag the dividing lines yourself. Clock face sweep is for stadiums: start at the top, spin around, adjustable center point. There's also an XLSX export/import — export current AP names to Excel, add the new names in the next column, load it back. Output is a new ESX file.

🎥 Watch the full talk:

#WLPC Express — Mountain View, April 13 & 14

WLPC Express is coming to the Computer History Museum in Mountain View, California on April 13 and 14 — co-located with Wi-Fi World Congress USA 2026.

This is a WLANPros Wi-Fi Troubleshooting mini boot camp with 12+ hands-on, instructor-led labs. Attendees receive a WLANPi R4, two Wi-Fi 6E NICs, WLANPros laminated checklists and resources, digital class materials, NetViews Pro for MacOS, and temporary software licenses.

Full schedule and registration: https://www.thewlpc.com/express/mountain-view-express

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Wireless to Wired Bridges

Keith Parsons tested his way through five different bridge solutions — from a 2.4GHz micro-USB puck to a GliNet Wi-Fi 7 travel router — looking for something small, portable, and easy

to reconfigure on the move. The post walks through what each one got right, where each one fell short, and which one he's using now.

Read the full post: https://wlanprofessionals.com/wireless-to-wired-bridges/

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