## GETTING THE LOCATION FIX

From the early navigation devices that were preprogrammed with limited scope for customisation, to GPS-enabled smart phones, the consumer mapping technology has evolved to provide users fast and accurate location information. But, do they offer what consumers really need? onsumer mapping is playing a predominant role in enabling people to use "location" for personal benefit. It could be to find a store, a restaurant or a friend. It might involve a digital map, or not. The benefits are almost limitless – finding your car keys, notwithstanding.

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Garmin and others used to build a personal navigation device industry. These early devices spoke a foreign language of latitudes, longitudes and datums and came with a few "apps" pre-programmed at the factory. Customisation was limited to the uploading of waypoint datasets through a cable attached to your PC. But, their limited functionality didn't mean

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they weren't useful, as I discovered with an "app" I built for a group tour of Paris in 2002. My "app" started with a copy of the Fodors Paris travel guide, from which I chose general attractions and other "must see" sites in and around Paris. I entered their names and addresses in Microsoft MapPoint, which geocoded and plotted as pushpins annotated with latitude & longitude coordinates (Google Maps didn't exist so I couldn't use its satellite view to verify the geocodes). I printed the maps on a few sheets of paper, and with my Garmin eTrex GPS headed off to Paris. So, when we were standing in front of the Louvre and needed directions to the Notre Dame Cathedral, I would fire up my eTrex, get a location fix, reference my custom maps, and headed off south-east for 2 km. It was my first trip to Paris, but in a way it felt like I had lived there my whole life. A few years later, I replaced the eTrex with a Bluetooth GPS puck, and MapPoint with a programmable cellphone. I fashioned a number of "apps" for this bespoke platform. On a good day, the apps would get a location fix in about one minute, standing still, out in the open. Of course, if I was in a downtown corridor or demoing an app to a client, I never got a fix. The potential was there, but the execution wasn't. And if you experimented with a truly convergent device like the Garmin iQue 3600 (which combined an eTrex with a Palm Pilot) or the Nokia N95 (which added Internet connectivity) you would have experienced the same thing: a minute to the first fix, if you were lucky, and only outdoors. Imagine a cellphone that required you to stand outside, then wait a minute - or more before you could place a call? GPS could deliver 3 m accuracy, but not a location fix within seconds, indoors or out. And that is what consumers needed.



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