

# SA could be a pathfinder for simple mapping tech

**M**apping has been reinvented, but almost no one has noticed. We still rely on street addresses in a world where billions live on streets with no names. We depend on GPS – the global positioning system developed by the US military – despite widespread ignorance of how to express that position.

There is a startlingly simple solution that has been available for the past decade. Mapcodes, invented by Dutchmen Pieter Geelen and Harold Goddijn, founders of the navigation technology company TomTom, allocates a group of letters and digits to represent any location on earth. A mere four digits, separated by a dot, can locate any spot in South Africa.

Mapcodes were placed in the public domain in 2008 and, five years later, the Mapcode Foundation was formed to stimulate its use. There have been a few spectacular successes, but these have usually been in areas that seldom come to public attention.

For example, the documentation of archaeological and botanical finds previously depended on capturing and recording latitude and longitude. Errors were common. The Naturalis Biodiversity Center, a research facility and natural history museum in Leiden, the Netherlands, applied mapcodes to the problem, and can now locate finds down to the nearest metre.

It is in Africa that mapcodes most readily meet a need. Etienne Louw, commercial director of MapIT, the mapping division of TomTom Africa before a recent broad-based BEE transformation deal took it independent, has been championing the cause across the continent for some years.



**Arthur Goldstuck**

**There is a database of mapcodes covering every dwelling in SA**

authorities about using it as a citywide addressing system.

“Once you have added a ‘dot-per-dwelling’ using aerial photography and satellite imagery, each dwelling in Kampala has a mapcode – and therefore an address. The city is ‘addressed’ overnight, and that opens the way for implementing emergency response solutions, e-commerce solutions, and service delivery improvement.”

In South Africa, says Louw, the Post Office is looking at using mapcodes to reach the unaddressed. “There is already a dot-per-dwelling database of mapcodes covering every dwelling in South Africa. This can also be used as a base for the 2019 national elections.”

One thing the Mapcode Foundation does not have is a marketing budget. The result is that it is losing ground to commercial solutions that are neither as simple nor as foolproof. For once, South Africa is in an ideal position to reignite worldwide interest.

“We helped Umeme, the electricity supplier for Uganda, to implement mapcodes, as it was near impossible for the public to report problems to their call centre,” he says. “Now all assets have a mapcode with a sticker showing the code. Anyone phoning in and reporting a problem just reads the code to the call-centre operator, who types it into their command and control software, where the position of the asset is shown on a map.

“The mapcode is sent to a technician, who types it into a TomTom navigation system, where it is translated and turned into the destination point. Simple, yet powerful.”

Having proved that the system works, mapIT is now speaking to Kampala city

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