

The issues caused by over-reliance on optimisation software in kerbside collection rounds rebalancing

ROCC Computers White Paper

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The Problem

I received an email recently from the head of waste services at one London borough the last line of which says: "...I have no intention of doing it again during my career here." Just last week I was at a Midlands based authority where the head of service had just spent yet another morning with red pen, paper maps and lots of strong coffee re-drawing rounds that had been handed to him from an external consultancy who had employed optimisation software to 'rebalance' his rounds.... Sound familiar? So often I hear the same old story... good looking, 'sexy' software that promises the earth and delivers... more work with red pen and paper maps!

Where does this software originate?

The origin of optimisation software is the North American parcel delivery market. Companies like Fedex and UPS needed to calculate the 'optimal' route (cost versus speed) to deliver letters, parcels, etc across states and internationally. The software then moved into other related markets that had 'collect and deliver' characteristics.

Who is pushing it into the local authority waste management sector?

A number of consultancy companies specialising in the public sector are using it – often with exclusive contracts with the software authors – to aid in their round rebalancing analysis. Over simplifying the process greatly, the software enables analysts to stay at their desk when analysing the kerbside collection rounds, relying on data from the mapping software, and existing data from the local authority (number of properties, number of bins, vehicle types used, etc).

Why it fails in kerbside collection

In two words 'local knowledge': How can optimisation software possibly know which roads are prone to citizens double parking cars, which roads have adverse cambers, which junctions have road signs that overhang the road, which properties have collection points in the alley at the rear rather than on the road, etc?

It is these very real, every day realities of community life that causes optimisation software to fail. It just can't take into account the provincial nature, the local idiosyncrasies of community based kerbside collection.

Is there an alternative?

Does the failure of optimisation software for round rebalancing mean that waste collection managers are left with a red pen, paper maps and spreadsheets? No, there are alternatives. It is possible to have a 'unified view of data' where all the information held on a spreadsheet can be viewed *in combination with a digital map* – all on the same screen! This type of software is NOT optimisation software as the software has 'limited intelligence'; these solutions are more a tool to aid managers rebalance and create new rounds relying on the local knowledge and experience of the operational team.

The merging of digital mapping and database technologies is so advanced that waste managers can now do away with red pens, paper maps and hours of laboriously redrawing rounds!

For more information about ROCC and its range of services and solutions
please contact us on:

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